AMERICAN CATTLE PRODUCER

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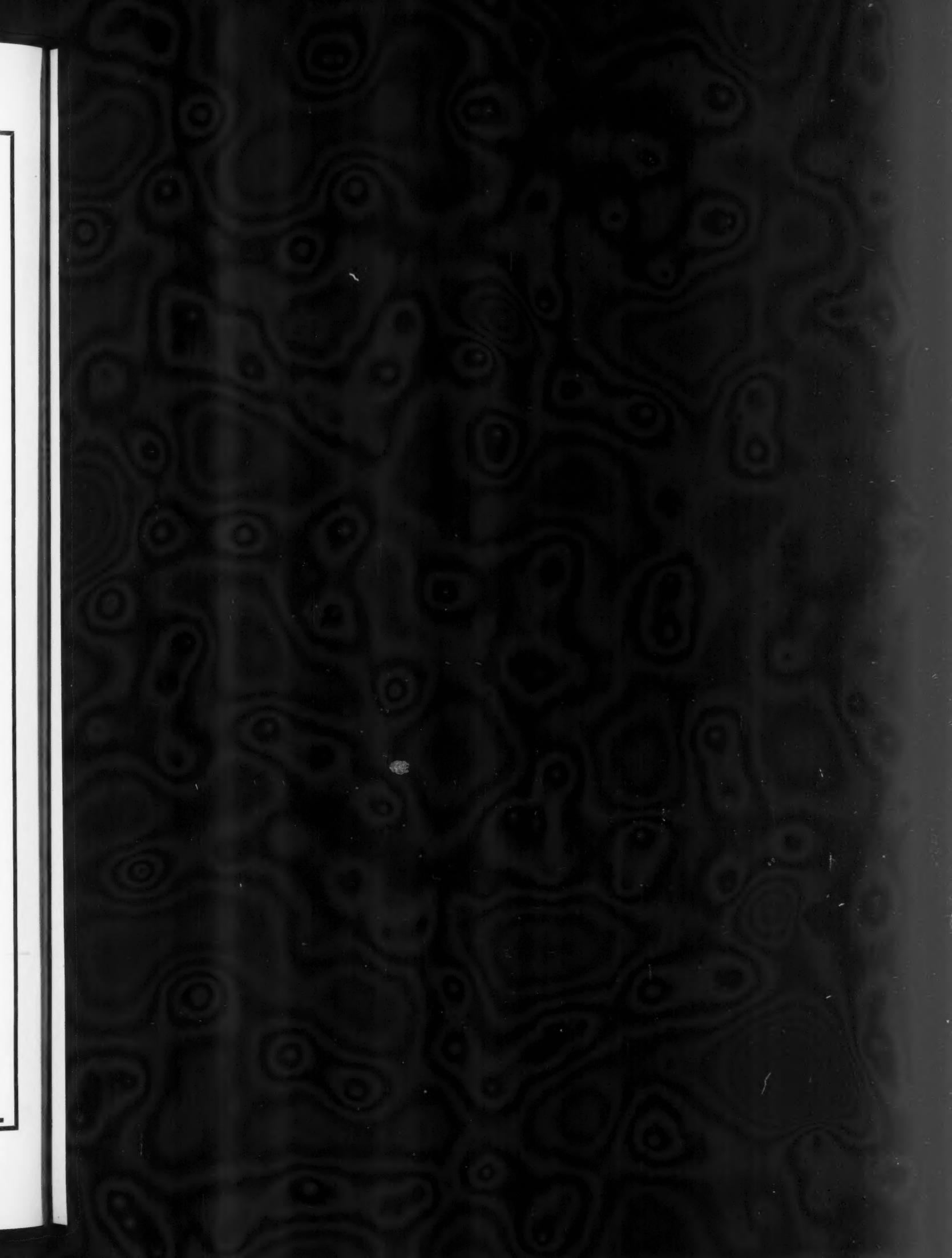

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VALUES OF RANGE GRAZING LANDS

By A. F. VASS

The University of Wyoming

ONE OF THE MOST COMPLEX problems involved in the range live-stock industry today is that of grazing lands, their control, as well as their costs in interest, taxes, leases, and fees. A rancher may have four or five different agencies assisting him in adjusting his live stock to range conditions, with as many different fees per month. In addition, he has to deal with his owned land problems and the management of his ranch from the production standpoint. Taxes per cattle unit (one breeding cow or her equivalent) may vary from 50 cents to $4 and investment costs from $3 to $10, depending on the amount of tax- and investment-free land available.

Land investment is so important that a poor manager using tax-free land has a better chance of making a fair rate of interest than the efficient manager on overvalued, overtaxed privately owned lands. As this item of investment is more important than any other factor in influencing the rate of return and shows a greater variation in range live-stock production than perhaps any other agricultural industry, it should be given careful consideration. The great importance of investment per animal unit is due to the fact that interest and taxes are the largest item of cost in production, representing approximately one-half of the total. This is not the case with most products.

The statement is sometimes made that the rancher cannot afford to own western grazing lands. This indicates that the values placed on the lands are too high; for the rancher, like any other business man, can afford to own all property that has value in his production program. Proper land and live-stock values for production purposes are, therefore, of major importance and will permit private ownership.

The writer first called attention to this matter of land valuation in 1926 (Wyo. Sta. Bul. No. 147) and in later publications and articles in THE PRODUCER. The value of the Red Desert grazing lands in Wyoming, requiring eighteen and eight-tenths acres to carry a sheep for one year, was placed at 39 cents per acre (Wyo. Exp. Sta. Bul. No. 156, 1927). Later and more extensive studies have substantiated these early findings on land values. The twelve best ranches showing a rate of return of 11.66 cents had an investment of $107 per cattle unit, whereas the twelve ranches with the lowest rates of return earned 2.37 per cent on their investment of $162 per cattle unit (Wyo. Sta. Bul. No. 197, 1933). Good management cannot overcome the handicaps of the maladjustments that now exist in ranch investment per cattle unit. Interest and taxes per cattle unit on the ranches showing a loss were $3.68 greater than on the twelve best ranches—an amount which over a period of years represents the difference between success and failure.

Why this great diversity of investment and feed costs per cattle unit? The answer is overvaluation of privately owned land as well as the mixture of federal and state control with private ownership. Ranch holdings which at one time had a carrying capacity of 500 head of cattle have had this reduced to 100 head, not due to any change in the forage, but to the fact that the outside open range, which was formerly used without cost, is now in the control of other interests. In this case the assessed values of the owned land, which was formerly $5 per acre, should now be reduced to about $1. If some agency other than the rancher who uses them is to control these non-deeded lands, we should now have a drastic revision in our owned land values. The present set-up makes the rancher part owner and part tenant, and the values on his owned land should be based on its carrying capacity rather than on the complicated values that may arise from the ever-changing federal permits. If federal permits should be definitely tied up with the privately owned land and the rancher given control of his management practices, it might then be possible to place the proper value on the deeded land, plus the permits.

The grazing land picture in the State of Wyoming, based on control, and cost for twelve months of feed per breeding cow, is given in Table I.

Ranching is a method of harvesting and marketing, by means of grazing live stock, the scant vegetation found in those areas where climatical and other conditions are not favorable for the luxuriant growth of plants that will permit harvesting by machines. The problem of the rancher is to keep the initial cost of the forage and harvesting costs equal to or below the value he receives for the end product. Our economic investigations have shown the cost of harvesting the forage, the production of live-stock products from a given amount of forage, as well as the price that he may expect to receive over a long period of years. The difference between the receipts and expenses, other than land, is the amount the producer can have capitalized in land at the prevailing rate of interest and taxes in the area.

Taxes on grazing lands should absorb about one-fifth of the land income or leased value, based on 5 per cent interest and a 12½-mill tax levy on 100 per cent valuation or a 21-mill levy on 60 per cent valuation on the investment. The land should, therefore, return 6.25 per cent on investment. This rate and ratio has been used in Table II, which gives the cost of production. In many cases the values placed on privately owned grazing lands have been far greater than their actual producing value, due to their tie-up with some of the investment-free and tax-free lands. This practice of excessive valuation has been carried over to other lands that do not have the federal aid, which results in excessive taxation. Taxes of $4 on the investment per cattle unit are not uncommon on those ranches owning all their land, whereas the taxes on other ranches may be only one-eighth this amount. When we consider that taxes and interest represent one-half the total costs, it is easy to understand why investment is the most important factor in ranching.

As forage is the basic thing which the rancher is marketing, then the cost of the feed is one of the most important things in determining profits. Table II gives the receipts and items of cost in running range cattle on privately owned

lands where the carrying capacity is twenty-four acres for twelve months' feed per cattle unit.

A charge of $8.25 per cattle unit permits an investment of $132 at 5 per cent interest and 1.25 per cent taxes. The distribution of this investment will vary in the different areas of the West, depending on climatical conditions and carrying capacity of the land. On lands in the northern range states, where twenty-four acres will produce the equivalent of twelve months' feed, the distribution given in Table III represents a good average.

The annual production of beef per cattle unit is placed at 290 pounds. The long-time corrected selling price per cwt., which represents the she-stuff as well as the steers, is placed at $5.75.

The question regarding the proper valuation of grazing lands is one on which there is a great diversity of opinion, as evidenced in the values used by tax commissioners and boards of equalization. The assessed value of grazing lands in Wyoming was $3.08 per acre in 1928 and $1.52 per acre in 1938, which indicates that considerable adjustment has been made in land values.

Table IV gives the value of grazing lands based on their carrying capacity. The practical rancher knows that it costs more, omitting land charge, to run 200 head of cattle on a range requiring 20,000 acres, than to run the same number on lands requiring 2,000 acres. The lower the carrying capacity of a range, the smaller the amount of investment that one should have in land, as the operating costs increase as the carrying capacity decreases.

Land with a carrying capacity of twenty-four acres per animal unit has a value of $2.50 per acre for beef production, and if properly situated for dry-land farming will produce on the average about twelve bushels of wheat per acre on summer fallow, permitting a value of about $2.50 per acre for that purpose.

Starting at $60 per cattle unit, the value of land required to produce twelve months of feed decreases down to the point where it has no value for grazing purposes. The vegetation becomes so scant that it is not worth the effort required to harvest it. The results of our investigation to date indicate that this point is reached when it requires 212 acres to supply an animal unit with twelve months of feed.

Column one of Table IV shows the range from 26.7 to 3 animal units per section, with the latter having no value. Column three gives the value that could be placed on land, and the fourth column, the value per acre. Interest is figured at 5 per cent and taxes at 1.25 per cent based on full valuation. The annual cost per acre is given in the seventh column, and the annual cost per cattle unit and per month in the last two columns.

Where the carrying capacity of a range is known, the amount of money that the rancher may have invested in land, value per acre, and the feed cost per month, may be arrived at by the following formulas:

$$\text{Investment in land} = 60 - \left(\frac{(CC - 24) \times 32}{100}\right)$$

$$\text{Value per acre} = \frac{LV}{CC}$$

$$\text{Feed cost per month} = \frac{LV \times 6.25 \times CC}{100 \times 12}$$

Where:

CC = Acres required for twelve months of feed per animal unit

LV = Land value per cattle unit

6.25 = Interest at 5 per cent and taxes at 1.25 per cent on full valuation

In those areas of the West where the carrying capacity is eight and nine-tenths animal units per section, or seventy-two

(Continued on page 32)

TABLE I—Feed Costs on Grazing Lands Per Breeding Cow

Control	Cost per Month Or per Acre	Cost of 12 Months of Feed
Public domain—Taylor grazing district	5 cents per mo.	$ .60
Public domain—federal leases	50 A. at 2.4 cents	1.20
Public domain—national forest	15 cents per mo.	1.80
Federal—Indian Service	Subject to bid	2.00
Federal—repurchased grazing districts	17 cents per mo.	2.04
State owned—leased land	50 A. at 7 cents	3.50
Privately owned land	50 A. valued at $1.52 Interest at 5%. Taxes at 2%.	5.32

TABLE II—Receipts and Expenses Per Cattle Unit

Receipts—		
290 pounds beef at $5.75 per cwt.		$16.68
Expenses—		
Labor	$5.25	
Depreciation and repair on buildings and improvements (3 per cent depreciation, 2 per cent repair)	.60	
Depreciation and repair on machinery and equipment (10 per cent depreciation, 5 per cent repair)	.75	
Truck and automobile	.50	
Bulls purchased minus bulls sold	.48	
Supplies and miscellaneous	.85	8.43
Amount available for interest and taxes on investment		$ 8.25

TABLE III—Distribution of Investment Per Cattle Unit

Item	Investment	Per Cent	Interest 5 Per Cent	Taxes, 1.25 Per Cent	Total Int. and Taxes
Land—24 acres at $2.50	$ 60	45.46	3.00	.7500	3.75
Building and improvement	12	9.09	.60	.1500	.75
Cattle unit	45	34.09	2.25	.5625	2.8125
Other live stock	3	2.27	.15	.0375	.1875
Machinery and equipment	5	3.79	.25	.0625	.3125
Feed, supplies, and miscellaneous	7	5.30	.35	.0875	.4375
	$132	100.00	6.60	1.6500	8.2500

TABLE IV—Grazing Land Value and Feed Costs Per Animal Unit

Cattle Units per Sec.	*Carrying Capacity Acreage	Total Land Value per Cattle Unit	†Value per Acre	‡Annual Cost Per Acre Interest 5%	Taxes 1.25%	Total	Feed Cost Per Animal Unit Per year	Per mo.
26.7	24	$60.00	$2.50	$.1250	$.0313	$.1563	$3.75	$.3125
17.8	36	56.16	1.56	.0780	.0195	.0975	3.51	.2925
13.3	48	52.32	1.09	.0545	.0136	.0681	3.27	.2725
10.7	60	48.48	.81	.0405	.0101	.0506	3.03	.2525
8.9	72	44.64	.62	.0310	.0078	.0388	2.79	.2325
7.6	84	40.80	.49	.0245	.0061	.0306	2.55	.2125
6.7	96	36.96	.39	.0195	.0049	.0244	2.31	.1925
5.9	108	33.12	.31	.0155	.0039	.0194	2.07	.1725
5.3	120	29.28	.24	.0120	.0030	.0150	1.83	.1525
4.8	132	25.44	.19	.0095	.0024	.0119	1.59	.1325
4.4	144	21.60	.15	.0075	.0019	.0094	1.35	.1125
4.1	156	17.76	.11	.0055	.0014	.0069	1.11	.0925
3.8	168	13.92	.08	.0040	.0010	.0050	.87	.0725
3.6	180	10.08	.06	.0030	.0008	.0038	.63	.0525
3.3	192	6.24	.03	.0015	.0004	.0019	.39	.0325
3.1	204	2.40	.01	.0005	.0001	.0006	.15	.0125
3.0	212	.00	.00	.0000	.0000	.0000	.00	.0000

* Average acreage requirement based on a long period of years to produce twelve animal unit months of feed.
† Values not carried beyond cents.
‡ Based on value per acre.

PROTEIN SUPPLEMENTS FOR RANGE CATTLE*

By E. M. BROUSE

I FEEL SOMEWHAT HESITANT IN appearing before this group of stockmen to discuss a question with which you are more or less familiar. I think most of us go to church not so much to hear something new as to whet our enthusiasm toward better living. So, in discussing the value of protein supplements, I hope to increase your interest in a practice which will lead to a more profitable livestock production.

In the range area of Nebraska, cattle may suffer from inadequate nutrition for several reasons. The feed itself may be insufficient in quantity or it may be lacking in one or more of three important respects: the amount and kind of protein; the amount and proportions of essential minerals; and in the vitamin content.

Vegetation in the range area is, generally speaking, low in protein. This is especially true of prairie hay and winter range. Drought conditions also lower the feeding value of the hay and range.

The protein requirements of the pregnant or nursing cow cannot be met with prairie hay as the sole ration. It is true she will produce a calf, but she can do a better job of it when fed a protein supplement. The growing calf also has a higher protein requirement than is supplied in prairie hay. Shorting a calf on protein retards development.

This practice was not such a serious factor fifteen or twenty years ago when the majority of the calves were held on the ranch to be sold as three- or four-year-olds. They could be wintered on prairie hay and go onto grass in the spring weighing but little more, and often less, than at weaning time. Two or three more years would afford plenty of time to develop. So the ranches in that period were justified in wintering the calf without a supplement.

However, those times are past for most of the ranchers. The demand for the big steer is all but gone and the demand for lighter weight cattle has put the rancher on a calf or yearling basis.

Since the calf is to spend only from six to eighteen months on the ranch, does it not behoove the owner to see that it makes profitable use of that time?

The University of Nebraska at its Valentine substation started in 1926 a series of experiments to determine the relative value and amount of protein supplements in wintering calves which were to be sold off grass as yearlings. Four classes of supplements were used: high protein concentrates such as cottonseed cake, soybean oil meal, and tankage; low protein concentrates such as oats, barley, rye, and corn; commercial mixed protein feeds; and leguminous hay, alfalfa and mixed clover.

The results of these tests have been consistent. The feeding of a protein stimulated metabolism, as indicated by an increased appetite. It is interesting to note that calves wintered on 1 pound of cottonseed cake per day consumed on an average 22 per cent more hay than did calves on hay alone. Without a supplement, calves ate 10.5 pounds of hay. The feeding of a supplement might prove a profitable way of converting surplus hay into beef without handling more cattle. This increased hay consumption no doubt is responsible for a portion of the additional gain resulting from feeding the supplement. Over a five-year period the average winter gain made by calves wintered on prairie hay alone was 25 pounds. One year the calves lost 13 pounds, weighing less in the spring than when weaned.

The average winter gain from feeding 1 pound of cottonseed cake per day for 170 days was 184 pounds. When turned onto summer range it was found that the more a calf had gained during the winter the less it would gain on grass. However, at the close of the grazing season, the calves wintered with cottonseed cake were 107 pounds heavier than calves wintered without a supplement.

Since grass is the stockman's cheapest feed, he is naturally interested in a maximum grass gain. Nevertheless, if by feeding a supplement a larger profit is made, should he not be interested in the practice?

The important question is: how much winter gain can he afford to put on the calf and still get the most profitable return from the winter and summer period?

In feeding cottonseed cake at various rates, the results showed that 1 pound per day was the most profitable. The net gain off grass in the fall from wintering on 1½ pounds of cottonseed cake was the same as from 1 pound.

The net gain over no supplement for the various rations tested varied from 41 pounds in the case of 2 pounds of corn to 107 pounds from feeding 1 pound of cottonseed cake. Feeding ½ pound of cottonseed showed a net gain of 70 pounds, and ¾ pound, a net gain of 84 pounds. One pound of tankage produced a little larger gains than cottonseed, but due to higher price was less profitable. Soybean oil meal has been gaining in popularity as a winter supplement. The price relationship to other proteins has been to its advantage. Soybean oil meal is relatively low in phosphorus, and when used to supplement prairie hay that is also low in phosphorus results have been less profitable than using cottonseed cake. However, recent feeding tests indicate that, when soybean oil meal is supplemented with a mineral mixture or steamed bone meal, it is as profitable as cottonseed cake. At the North Platte substation, Baker found that 1 pound of soybean oil meal produced greater and more economical gains than cottonseed as a supplement to silage. Both expeller and solvent processed soybean oil meals were tested with no significant difference in results.

The feeding of 2 pounds of grain, with the exception of corn, has produced about the same gain as feeding ¾ pound of cake. Since the digestible protein furnished by the 2 pounds of grain is less than from the ¾ pound of cottonseed cake, it would appear that the total nutrients in the grain were responsible for part of the gain. However, corn, which furnished the largest amount of total digestible nutrients and smallest amount of digestible protein, produced the poorest gain.

Oats are a popular feed for calves, but ground rye or ground barley is practically equal to them as a supplement to prairie hay. By replacing 1 pound of the grain ration with ½ pound of cottonseed cake, the winter gains were increased 60 pounds for corn, 52 pounds

Range calves are wintered in these lots with no shelter except the windbreak.

*Address of E. M. Brouse, superintendent of the Valentine Experiment Substation, University of Nebraska, delivered before the convention of the American National Live Stock Association at Denver on January 11, 1940.

for oats, and 45 pounds for rye. By the end of the grazing season this advantage had been reduced about 50 per cent.

There are a number of commercial mixed feeds in pelleted form being sold in the range area as supplements in wintering cattle. The protein content of these feeds ranges from 12 to 37 per cent. The Valentine substation wintered calves on 12 per cent and 22 per cent pellets fed at the rate of 1 pound per day as a supplement to prairie hay. The winter gains were 62 per cent and 78 per cent of that made by feeding 1 pound of cottonseed cake. By the end of the grazing season the gains had increased to 86 per cent and 90 per cent that of

The bunch at left got prairie hay alone. It gained 25 pounds in 150 days. Those at right got prairie hay and 1 pound of cottonseed cake per day. Gain: 175 pounds in 150 days.

cottonseed cake. If the latter is selling for $40 per ton, the pellets would be worth $34 and $36. Higher protein pellets may equal cottonseed cake in producing gain.

In regions where leguminous hay is produced, the protein requirement may be supplied without a concentrate. Prairie hay containing 25 per cent red and alsike clover produced as much gain as feeding ¾ pound of cottonseed cake with native hay. Four or 5 pounds of good alfalfa fed as a supplement to prairie hay will produce gains equal to ¾ pound cottonseed cake. Where alfalfa is plentiful it can be fed as the sole ration. The gains will depend on the quality of the hay. In 1932 a gain of 252 pounds in 180 days was made on choice third-cutting alfalfa. The calves ate 15.5 pounds of hay per day, which was a large amount for calves weighing 365 pounds at weaning time. During the 150-day grazing period the calves gained 206 pounds.

The importance of good quality in any hay can hardly be overestimated for calves. Many ranchers keep their best hay for wintering their calves.

Early cut hay properly cured is richer in protein, phosphorus, and vitamin content. Green color is an indication of a vitamin factor that is very important to the growing animal.

The prairie hay used in the Valentine experiments has been Sand Hills meadow hay of average quality. It contains from 5 to 6 per cent protein and 0.10 to 0.13 per cent phosphorus. In some regions the hay is higher in these substances and in others it is lower. There are few regions where the prairie hay is sufficiently high in protein to make the use of supplements unprofitable.

Money invested in protein supplements for wintering calves will pay a high rate of interest with present feed and cattle prices. For example, take the gains from feeding ½ pound of cottonseed cake. Eighty-five pounds of supplement at $2 per cwt. would cost $1.70. The net gain of 70 pounds over no supplement at 6 cents would be worth $4.20, which is $2.50 more than the cost of the supplement. The value of the net gain from feeding 1 pound of cottonseed would be $3.02 above the cost of the supplement. With $30 cottonseed cake and $7 yearlings the return above cost of supplement would be $4.94. The extra amount of hay eaten by calves receiving cottonseed cake would cost 80 cents, with hay valued at $4 per ton. On most ranches the labor involved in feeding a supplement is available at no extra cost.

Supplemental feeding has another value: that of affording a more attractive offering to the early buyer. In other words, they can go to town ahead of the heavy run.

Calves wintered with a supplement may be called in the spring three-way yearlings. They can be turned onto summer range, be fed on grass, or be fed out in dry-lot. If the winter ration resulted in a gain of over 1 pound per day, they should not be summer grazed. The largest total gains for the wintering and grazing period were from rations which produced from ¾ to 1 pound of daily winter gain. These gains may be obtained by supplementing prairie hay with either ¾ to 1 pound of a high protein concentrate or 2 to 3 pounds of small grain or 4 to 5 pounds of alfalfa. The choice of a supplement usually depends on price and convenience in feeding.

The old practice of buying on a basis of cost per unit of protein while not infallible often proves the more profitable.

I think that this is as far as I care to go with my remarks on the Valentine work. Your secretary has arranged for a round-table discussion of this protein question, and I will be glad to answer any questions which you may have on this subject.

* * *

PRESIDENT HUBBARD RUSSELL. The meeing is now open for a round-table discussion, with Superintendent Brouse in charge. Anyone who has a question he wants to ask, please do so.

A MEMBER. I would like to ask if one would get better results from feeding sorghum than from feeding corn.

MR. BROUSE. I doubt if you will get better results from feeding sorghum than from corn.

A MEMBER. Can you give us the food value of different cuttings of alfalfa?

MR. BROUSE. The first cutting is lowest in protein and usually coarse. The fourth cutting is highest in protein and fine. The second and third cuttings are usually about equal.

A MEMBER. I would like to inquire as to the comparative values of cake and other commercial feeds.

MR. BROUSE. By commercial feeds I assume that the gentleman means feeds that are mixed and sold under a trade name. The result of six feeding tests at Valentine showed that more gain was produced from 1 pound of cottonseed cake than from 1 pound of 12 per cent to 22 per cent protein commercial feeds when used as a supplement to prairie hay.

A MEMBER. I would like to ask Mr. Brouse just what is a toasted soybean cake.

MR. BROUSE. If you will visit the soybean products exhibit in the joining room you can see soybeans in various forms of processing. Soybean oil meal made by the solvent process because of being cooked at a low temperature comes from the drier light in color and with a raw bean taste. This meal is again heated to give it the characteristic brown color and toasted taste of expeller processed meal.

A MEMBER. I was under the impression that soybean cake was a little lower in protein than cottonseed cake until I noticed an advertisement this fall to the effect that soybean cake was 44 per cent protein.

MR. BROUSE. A new process takes out more of the oil, which means that the meal contains a higher percentage of protein. It is possible to get soybean oil meal with as high as 47 or 48 per cent protein by the solvent process. Some feeders claim less laxative effects from feeding the meal with the low oil content. Experimental tests showed little difference.

A MEMBER. Do you think that the grinding of oats is profitable; that is, to grind for calves?

MR. BROUSE. I do not think it would be profitable to grind oats for calves, especially if fed only 2 pounds a day.

A MEMBER. Just one other question, and that is relative to the year-round gain. You gave several figures on that summer gain and winter gain. What about the year-round gain where supplements are fed?

MR. BROUSE. From feeding ½ pound of cottonseed cake during the winter, the net gain off grass over feeding no supplement was 70 pounds; 84 pounds from ¾ pound of cottonseed cake; 107 pounds from 1½ pounds of cottonseed cake; 107 pounds from 1 pound of cottonseed cake; 71 pounds from 1 pound of soybean oil meal; 96 pounds from 2 pounds of oats; 68 pounds from 2 pounds of corn; 70 pounds from 2 pounds of ground rye; 91 pounds from 1 pound corn plus ½ pound cottonseed cake; 98 pounds from 1 pound ground rye plus ½ pound of cottonseed cake. These gains are averages of three to five years' work.

A MEMBER. What about ensilage?

MR. BROUSE. Our range territory is not adapted to the production of ensilage. However, tests at other stations indicate that silage makes a very desirable winter ration when supplemented with a pound of protein concentrate or 4 pounds of alfalfa hay.

A MEMBER. Have you ever made a study of figuring the feedings of supplements every other day instead of every day?

MR. BROUSE. No, we have not.

A MEMBER. What is your opinion on that?

MR. BROUSE. I think that if you are not feeding more than 1 pound a day it might be profitable.

MEMBER. I don't know whether I made my question clear or not. What I wanted to know was if you thought that, say you are feeding a pound a day of cake, then just feed 2 pounds every other day.

MR. BROUSE. I doubt if you would get quite so much gain from feeding 2 pounds every other day. The saving in labor might offset the difference. When protein is fed in excess of the immediate demand of the animal, the nitrogen content of the excrements increases. We often speak of the law of diminishing return. In our wintering tests with cottonseed cake we found that as we increased the amount fed we decreased the efficiency of gain. It is like eating ice cream. The first dish tastes the best. Most people get little satisfaction out of a third.

A MEMBER. What about bloating if you feed alfalfa?

MR. BROUSE. We have no trouble with bloat.

A MEMBER. I don't know whether I understood what you said about the feeding of minerals. Would you mind repeating that?

MR. BROUSE. We use a mixture of 20 parts salt, 40 parts steamed bone meal, and 40 parts of finely ground limestone. We have also used steamed bone meal and salt. There are very few areas in the United States where any element other than those supplied by these three products is a limiting factor in livestock production.

A MEMBER. In areas where they have lots of limestone do you think that is too much limestone to put in?

MR. BROUSE. It is possible to feed too much mineral. The overloading with calcium often occurs and reduces the efficiency of metabolism. I think that it is well not to feed minerals unless there is an apparent need for it. If cattle are allowed access to minerals they do quite well in supplying their needs. There is usually a heavy consumption for the first few weeks.

A MEMBER. How long a period of time should one allow alfalfa to season before feeding it to live stock in order to prevent bloat?

MR. BROUSE. I have not fed sufficient alfalfa to feel qualified to answer that question. Many times well-cured alfalfa with a little moisture on it will cause bloat. At the North Platte station they have fattened cattle on alfalfa pasture and used it for dairy cows. They report very little trouble from bloat. However, alfalfa may cause considerable trouble and cattle must be watched.

A MEMBER. Referring to the question about grinding oats. I have tried it both ways and I prefer them whole. I think that wherever it is a little windy you will have eye trouble with your calves if you are feeding ground oats.

A MEMBER. In feeding cake, did you notice any difference if you fed too high a percentage of richness? What about the richness of your cotton cake?

MR. BROUSE. All our work has been on 43 per cent cake.

A MEMBER. Some of our animals have been taking more than they can properly handle.

MR. BROUSE. Feeding a large amount of cottonseed cake may cause digestive disturbances. However, it is only in the cotton-producing area where the price of cottonseed cake would warrant feeding over 2 pounds per head to cows and 1 pound to calves. I have seen no ill effects from feeding these amounts.

A MEMBER. What about clovers? Do you include sweet clovers?

MR. BROUSE. I think you can include sweet clover with the other legumes, although we do not raise sweet clover in our territory. But I do not know why it could not be used as profitably as other clover. It is not quite so palatable. If you can raise sweet clover, you need not buy a high-protein feed for your calves.

A MEMBER. In feeding minerals, did you find any advantage in forced feeding as against putting it out and letting them feed themselves?

MR. BROUSE. This year for the first time we are making a check on a question of that nature. We are feeding bone meal ad libitum and hand-feeding 1/10 pound a day of a mineral mixture.

A MEMBER. Did I understand you to say that your winter gain was 184 pounds on 1 pound of cake per day?

MR. BROUSE. Yes.

MEMBER. What was your total gain for the year?

MR. BROUSE. Three hundred and ninety-three pounds.

MEMBER. Two hundred and nine pounds of summer gain?

MR. BROUSE. Yes.

A MEMBER. A moment ago a gentleman spoke about sweet clover. In our experience we have found that you must be careful about feeding sweet clover at the time of dehorning because the blood does not clot readily.

MR. BROUSE. How long does the feeding of sweet clover affect the clotting of the blood? How long should its use be discontinued before dehorning?

A MEMBER. I could not say.

MR. BROUSE. I think they recommend that cattle should be taken off sweet clover two weeks to thirty days prior to an operation.

CHARLES E. COLLINS. I was just wondering if a fellow who had plenty of water, plenty of good grass, and plenty of good feed, would have much trouble with his mineral deficiency?

MR. BROUSE. I think that would help solve the problem.

MR. COLLINS. Well, I never had much cattle trouble unless I kind of got short on feed or grass.

MR. BROUSE. That is true. May I relate an experience to illustrate the value of good grass. We took blood samples at the beginning and end of the grazing season to determine the amount of calcium and phosphorus in the blood stream of calves wintered on various supplements. Those wintered on 1 pound of soybean oil meal went onto grass with lower blood phosphorus than calves wintered on soybean oil meal plus mineral or those on cottonseed cake. At the close of the grazing season the soybean oil meal lot showed a higher phosphorus content in the blood than did the soybean oil meal and mineral lot. The calcium content of the blood was practically the same for all lots. From the standpoint of gain, a two-year average showed the following: Winter gain — soybean oil meal, 132 pounds; soybean oil meal plus mineral, 165 pounds; cottonseed cake, 168 pounds. The summer gain was 195, 176, and 173 pounds, respectively. The grass had taken up all but 14 pounds of the 33 pounds of the winter advantage the soy and mineral lot had over soy alone.

I think that sometimes we are apt to oversell ourselves on the question of minerals. Before investing much in high-priced mineral mixtures, why not try steamed bone meal or a simple mixture and see if you get results.

I am happy to have had this opportunity of addressing the convention, and I appreciate your interest.

THE CENTRAL MARKETS*

By ALAN F. WILSON
John Clay and Company

IN THE FIRST PLACE, I WANT TO thank the officers of the association for giving me this opportunity to appear before an audience composed of such representative feeders and breeders of live stock, particularly as it is so liberally interspersed with good friends of long standing.

We in the live-stock industry, and I speak as a commission man, as a member of a firm that has loaned many millions of dollars on live stock, and, last but not least, as part owner in a number of ranches—have our problems, but that is nothing new. We have always had them, and I'll venture the assertion that we always will. We have made mistakes and will make more of them; but, if an organization such as the American National could get together some sort of a congress, consisting of the producer, the feeder, the commission man, the stockyards owner, and the packer, where some of our problems could be worked out, we would at least become more familiar with the difficulties confronting the other fellow and perhaps iron out some of our own. As it is, we are too inclined to criticize that same "other fellow" without justification. Here is a good illustration, and I am going to tell it, even though I am a Republican at heart.

A few months ago in Chicago I had the pleasure of sitting at the speakers' table at a luncheon at which there were about 600 guests. The guests of honor were the six publishers of the six great Chicago daily papers—the first time in history that the publishers of all the Chicago newspapers had ever sat with their feet under the same table. The toastmaster, our friend Oscar Mayer, with his usual diplomacy and in order to avoid any possibility of jealousy, called on the publishers in alphabetical order: first, John D. Ames, of the *Journal of Commerce*; next, Col. Frank Knox, of the *Daily News*; next, Harry Koehler, of the *Herald Examiner*; next, Col. Robt. R. McCormick, of the *Tribune*; next, Merrill C. "Babe" Meigs, of the *Evening American*; and last, S. E. Tomason, of the *Times*. The first five publications were decidedly Republican, and two of the publishers, Knox and McCormick, criticized in no uncertain terms the present administration. Finally, S. E. Tomason, of the *Times*, which is the only Democratic paper in the city, was called upon. He complimented his colleagues on their oratorical ability and then told this story:

"A young man was sitting in a duces loose poker game. Evidently the stakes were not very heavy, as he held five fives and won but $5. He was impressed with the combination of fives and concluded that five was his lucky number. The following day he went out to the race track and bet $5 on horse number five in the first race and won. He continued to bet on number five in each of the next five races and each time cashed in a winning ticket. When the seventh and final race came up he had accumulated $2,500, and he put all this on the number five horse. Unfortunately for him that particular horse became absent-minded and I don't believe has come in yet. In any event, the young man lost his entire bank roll. After practically all the spectators had left, our friend was sitting in his chair in the grandstand gazing at his ticket and wondering why his lucky number had failed him. Finally with a disgusted air he slowly tore the ticket into bits and was heard to mutter, 'Damn Roosevelt!' "

Is it not a fact that whenever any of us get into trouble we are inclined to blame the other fellow whether justly or not?

Now to get on with my subject, "The Central Markets."

I am not going to burden you with a lot of complicated statistics or dwell on the numerous forms of live-stock marketing that have sprung up in the past few years, even though I feel some of them are dangerous to the entire structure of the industry, but I am going to try to sell you a bill of goods on the subject assigned to me, "The Central Markets."

Play Important Role

For over seventy-five years the central markets have played an important part in the live-stock industry. They have afforded the producer and feeder at all times a cash outlet for their shipments and represent the greatest live-stock marketing system in the world—a system which is looked upon with envy by all other live-stock producing countries, such as Argentina, Australia, etc. The real beginning of what we now term central markets occurred in Chicago in 1865 when several small stockyards were consolidated into one general operating center under the name of the Chicago Union Stock Yards.

Economy of operation as well as convenience brought this about. Buyers and sellers thus met on one common ground. It proved a highly practical procedure. Live-stock supplies were concentrated within one general area. Competition became the order of the day. Purchasers were no less numerous than when the several small yards were functioning. Values became stabilized, and producers were highly satisfied with the effect of this amalgamation.

Receipts increased with great rapidity, and slaughtering facilities kept pace with the increase. Chicago became the live-stock marketing center of the country, and its market quotations virtually established prices the continent over.

It was natural of course that other markets should open as conditions arose to justify them, increased breeding, feeding, and grazing over the wide stretches of land west of the Mississippi resulting in the opening of such markets as Omaha, Kansas City, Denver, etc. But those markets looked to Chicago for their standard of prices, just as they and innumerable other points do in large measure today, transportation differentials being the greatest determining factor in establishing values at those points.

Many Changes

During the above-mentioned period we have seen many transitions in the trading activities between producer and consumer. It is within the memory of this generation that drovers went from place to place making purchases of cattle and then drove them overland to slaughtering plants in the East. Included in the purchases were many finished steers, but the long drive took its toll in heavy shrinkages, and the method, like the canal boat, could not keep up with the times.

With the shifting population, packing plants were built farther west, and, when the marketing distances were lessened and transportation methods were improved, the drovers were no longer active. For a while, local buyers bought and shipped most of the live stock; but the feeders soon found there were regular operators on the markets who could handle their shipments to equally as good advantage as they could, at the same time effecting a saving in expense, and right here we have our first record of regular marketing agencies.

These agencies were quick to realize that, without organization, questionable practices would creep in, so exchanges were formed, rules were promulgated, not only to govern market operations, but to insure for the patrons positive protection in every direction. How well those rules have served is best attested by the fact that to the best of my knowledge during the past decade not one patron on those of the eleven markets where my firm operates and where exchanges are maintained has lost a dollar through the failure of an agency to do its full duty as prescribed in the rules.

Fight for Patrons

As we look back through the years, we recall many battles which resulted in good for the patrons of the market. Most producers remember the insistence of the commission men that the scales be the dividing line and that no cattle be sold subject except they had been tagged by a representative of the government. The opposition of the packers was dogged but it availed them nothing. The cost of the stand made by the commission men was more than a "pretty

*Address before American National Live Stock Association convention, Denver, January 11, 1940.

penny," but the saving to market patrons has amounted to many thousands of dollars. When one analyzes the situation, it is plain that the commission man was not to be the loser under the packers' plan, but he was the market agency of the patrons and as such he proposed to oppose any move that was not to their best interests.

Thousands and thousands of dollars have been collected by the claim departments of our exchanges where railroad service resulted in loss and damage to shippers. When claims are declined, no charge is made. If they are prosecuted successfully, a fee representing a small percentage of the amount realized is charged. Where rail rates are not favorable to our markets, they are contested, and the costs of the contests made by the commission man have been heavy and he has stood them, although their benefits were not direct. In all our activities in both directions we have been fair to the carriers, refusing to oppose them except when it was just and warranted.

We are wondering if the public knows of our participation in the tuberculosis eradication and the bruised meat campaigns and the thousands of dollars spent in those directions; also, our support of the Meat Board, which in my humble opinion is doing one of the greatest pieces of constructive work for the live-stock industry that is being done today, and doing it upon a budget which is only a small fraction of what it should be.

Result of Planning

Markets did not just happen. They were the result of thinking and planning, interesting buyers for all classes of live stock, building slaughtering plants, providing adequate transportation, and the hundred and one other essentials for a successful trading center.

Producers of live stock are interested in securing the highest price obtainable for the product which they produce. Naturally they wish to secure the best returns possible from the use of their land, grain, pasture, forage crops, capital, and labor. Economical production of any commodity loses much of its value unless that product is marketed efficiently. Live stock is produced in every state in the Union. It represents a national commodity which goes into a national market; a large share of it is purchased by strong national buying organizations.

A central market is the place where all necessary facilities, equipment, and service are provided for the receiving, handling, selling, and delivery of live stock. Our central live-stock markets have been developed as an actual need for an effective system of marketing live stock. They serve as market places where large numbers of live stock can be concentrated and sold under open competitive conditions. Some packers have more urgent demands than their competitors for a particular kind of live stock. Some need lightweights, others, medium grades and weights, while the demand of others centers on choice grades of all weights. Consequently the farmer who feeds or the ranchman who grows live stock to sell to feeders is thoroughly convinced that, to realize the value of his offerings, better results are obtained by consigning to one of the central markets where competition centers and where he can find buyers for the various classes and grades of his offerings. There is no valid reason for trying to dispose of cattle suitable for the kosher trade, for instance, where no such demand exists; but at all central markets, there are buyers for all classes and grades of live stock, whether killers or stockers and feeders.

At central markets, live-stock producers have the benefit of many competitive bids, with a minimum of expense and a maximum of efficiency. Producers can rest assured that, regardless of the kind of live stock they have produced, it can be sold through the central markets to the best buyer available, because it will be offered to all buyers interested.

Buyers are attracted to a market where a considerable volume of live stock is assured from day to day. Volume gives buyers assurance that they can fill their orders regularly.

Efficient Sales Force

Every industry demands an efficient sales organization. This is particularly true of the live-stock industry. The experienced, capable live-stock salesman provided by the commission firms serves as the personal representative of the owner at the central market. The most important service which they perform is that of finding a satisfactory outlet for live stock consigned in their care, and they are paid only when they render actual sales service.

Apropos of the foregoing: A few years ago the professor of animal husbandry at one of our large agricultural colleges wrote a letter to the late John Clay asking him to employ half a dozen students as cattle salesmen during the summer vacation period. Mr. Clay's reply was very much to the point. He complimented the professor on the splendid work he and his college were doing but wound up by telling him that it was only preparatory to the profession of selling cattle on the central markets and that the students would have to take a ten-year postgraduate course in the great school of experience before they could be entrusted with the sale of cattle representing in many cases the result of an entire year's labor on the part of the shipper. The professor, a fair-minded man, admitted he had never looked at the matter in this light, and generously agreed with Mr. Clay. In my thirty-seven years of experience in the commission business, I have seen many promising young men come and go, and I have now reached the conclusion that a successful live-stock salesman must be born one. In the first place, he must be a judge of human character. Remember, he is pitting his ability against that of buyers who have probably had as much experience on their side of the market as he has on his. Secondly, he must be a judge of the class of live stock he is selling. Remember, he has got to depend on this knowledge to get the last dollar for his patrons. He does not have killing sheets or resale values to depend upon. Third, he must be a natural-born trader. One of the greatest thrills I get in the business is to listen to the repertoire of the salesman and buyer. It's a case of dog eat dog from the time the market opens till it closes. Fourth, he must be a good deal of a diplomat, as it is up to him to ingratiate himself with his customers, the buyers, and, naturally, his boss. Fifth, he has got to be a good mathematician. For instance, instead of getting a flat bid on a load of cattle, the buyer will frequently offer a certain price for, say, twenty head, with four out at a lower price. The salesman must at once determine whether to accept that bid or the bid of some other buyer who has made a straight offer for the whole load. And, remember, his calculations must be made mentally and at once.

Right here I am reminded of an incident that occurred a number of years ago. As an award for good work during the year, the Bank of Montreal used to send a selected group of their branch managers on educational trips. The objective of one of these trips was the Chicago stockyards. The men in the delegation completed their survey of the yards and then came down to our office in The Rookery on La Salle Street to discuss live-stock loans. What I was unable to tell them is another story. Anyway, after a few minutes' conversation, it was apparent that one thing which had impressed them more than anything else was the aforementioned mental calculations. I will admit they had me stumped. It was simple if you knew the weights of each bunch of cattle to figure it out with pencil and paper, but the immediate mental calculation was beyond me. At that moment, much to my relief, one of our cattle salesmen was announced. I explained my dilemma, handed him pencil and paper, and asked him to put down step by step just how he reached his conclusions. He pushed them aside, deposited his cud in the cuspidor, and said: "What are you trying to do, make a monkey out of me? You don't figure it up, you *just know*."

Rates Reasonable

In 1921 Congress passed what is known as the Packers and Stock Yards Act. Under the terms of this act, it is the duty of the Secretary of Agriculture to name the maximum rates which may be charged at the central markets by stockyards companies and market agencies. These rates are prescribed only after exhaustive hearings and study, and, while we frequently do not agree with him and almost invariably feel that we

are not allowed enough compensation for the various services rendered, nevertheless the rate stands and the market patron is assured of a reasonable rate and, since the last session of Congress at which an amendment to the act was passed, a uniform one.

As an example of the reasonableness of these rates, I am going to give you some actual consolidated figures which have just been compiled covering the operations of our own firm at eleven of the country's leading markets for the year 1939:

Value of stock handled	$76,369,295.33
Our commission was slightly over	1 per cent
Total number of animals handled	4,786,121
Profit per head on cattle	$.0756
Profit per head on hogs	.0292
Profit per head on sheep	.0118

I am sure you will all agree that this is not a very heavy toll for the shipper nor an exorbitant profit for the market agency.

Central Markets Essential

In conclusion: I wish I had the power of oratory, the ability of expression, the versatile mind so necessary to set forth appealing arguments to convince you of the great value and the absolute necessity of the central markets. I have not any of these accomplishments, but speaking as man to man and with all the sincerity at my command, I am thoroughly sold on the idea that the central markets are just as essential to you, the live-stock producer, as you are to them. For one moment let us consider your position. If there were no central markets, where would you get a yardstick for your values, where would you find a cash market for your product every day of the year, what would you have done to cash in your cattle during the panics of 1907, or 1914 when boards of trade and stock exchanges were closed and when about the only commodity which could be turned for cash was live stock? The bank moratorium of 1933—how many of you lost money through bank and business failures during those trying times when, on the other hand, live stock shipped to the great central markets was being paid for at prices based on current demand, and, when I say paid for, I mean just that. When the stock exchange is closed, how can you determine the value of a share of U. S. Steel? If the central markets were closed, how would you know the value of your cattle?

The only salvation of the central markets is volume, for without volume you cannot attract competition and without competition the organized minority with a large bank roll has a tremendous advantage over an unorganized majority with goods to sell.

Friends, you have been kind to listen to me so attentively. Now, don't you feel it is up to you to maintain the central markets if you want them to continue?

FACTORS INFLUENCING CONSUMPTION OF BEEF*

By D. H. LaVOI

THE BEEF CATTLE BUSINESS IS of such vast economic importance and its success involves so many factors of vital significance to all concerned that the task of increasing the use of beef on America's tables requires the united efforts of all branches of the live-stock and meat industry from the producer to the retailer.

Figures for the year 1939 are not yet available, but in 1938 nearly 24,000,000 cattle and calves were marketed in this country, furnishing a cash income of $1,144,334,000 to the nation's farmers. There are about 31,000,000 head of beef cattle on the nation's farms—an average of 10.3 animals per square mile. In 1938 a total of 6,876,000,000 pounds of beef was produced in this country, and it was consumed at the average rate of 6,417,000 pounds per meal.

Factors having an influence upon the consumption of beef are: (1) Beef cattle supplies; (2) feed supplies; (3) meat prices; (4) supplies of other foods; (5) quality of beef supply; (6) industrial activity and buying power; (7) consumer preferences; (8) trends in meat merchandising; and (9) consumer knowledge of product.

The live-stock and meat industry as a whole must keep abreast of these and all other factors which may have an influence on the use of beef in the menu. As an industry we should always keep in mind that the consumer should be provided with the quality of beef and the kind and size of cut desired at a price which he can afford to pay.

In considering the subject assigned, we should remember that something like $9,500,000,000 is spent for food in this country annually. Probably three-fourths of this amount is spent by the American housewife, who buys and prepares the beef served in 31,000,000 homes. Her problem of food purchasing has become vastly more complicated in recent years because of the tremendous competition in the food field. New foods have come on the market and well-known foods are being distributed in new forms. Something like 150 cereals, for example, are now bidding for a place at the breakfast table in comparison with a relatively few kinds of cereals fifteen to twenty-five years ago.

Today's housewife is a much more discriminating food shopper than the housewife of even twenty-five years ago. When she goes into a retail market she wants a piece of beef carrying as little waste as possible. In a majority of cases she wants to stretch her meat dollar to the very limit. She appreciates suggestions regarding the utility of the different cuts of beef available, their food value, how to prepare them. Anything that the beef cattle industry can do to assist her with these and other problems should have a definite bearing on her expenditures for beef.

Studies to determine the nutritive value of beef and other meats are of special importance, since food interests everywhere are now stressing their products from the standpoint of the part they play in proper nutrition. During the past fifteen years an intensive research program under way at leading colleges and universities has shown that beef is a rich source of the essential food elements. The value of beef in the child's diet and in reducing and gaining diets has been brought out. The importance of beef in furnishing high-quality protein, phosphorus, iron, copper, and calories has been discovered through intensive studies. The role of beef as a rich source of some of the necessary vitamins is not known.

It is little wonder that the use of beef is now recognized as a necessity where stamina and endurance are required. Glenn Cunningham and Sonja Henie assert that steaks are an important part of their daily diet. Howard Hughes, round-the-world flier who saw the sun rise and set five times in four days, wants heavy servings of beef when he sits down to a meal. Beef is in demand on the training tables of football players and of Olympic athletes. We learn from press dispatches that in the wars overseas the question of supplies of beef and other meat is of real concern in providing the food rations for the millions of men under arms. In Germany, for example, the present meat ration for the civilian population is only a little more than a pound weekly but the meat allotment for the soldiers is kept as high as possible.

Fully as important as research designed to determine the food value of beef is meat cookery research. We now know, as the result of meat cookery studies, that many of the methods used in cooking beef for generations were all wrong. We know that high temperatures in cooking are wasteful of both beef and fuel and that the result is a less palatable product. Along that line, the board recently carried on a cooking experiment in which roasts from opposite sides of the same beef carcass were cooked to the same degrees of doneness. Each roast weighed thirty-two pounds. One was prepared in the board's testing kitchen at a temperature of 275 degrees Fahrenheit and required six hours. The

*Summary of address before convention of American National Live Stock Association, Denver, January 11-13. Mr. LaVoi is director of department of public relations of the National Live Stock and Meat Board.

other roast was prepared in a hotel kitchen at a temperature of 550 degrees Fahrenheit, requiring only three hours. When re-weighed, the roast cooked at the lower temperature was found to have a shrinkage of 11 per cent while the roast cooked at the high temperature had a shrinkage of 28 per cent. In other words, 17 per cent of the latter roast was sacrificed to a hot oven.

An example of another type of research is the color-in-beef studies now under way. These studies were undertaken to determine the factors which may be a cause of off-color in the lean of beef. The studies involve the 750 4-H calves exhibited in the 1938 and 1939 junior feeding contests at the International Live Stock Exposition. The studies thus far show that many of the factors once thought to be responsible for off-color in beef bear little or no relation to the condition. Valuable leads have been secured on factors which seem to be rather closely correlated with the condition. These will be followed out intensively in the future in the endeavor to solve this important problem.

Different nationals prefer different kinds of meat. In general, the English and Germans like beef with plenty of fat. This kind of beef is also in heavy demand in the New England states. The French and the Swedes demand beef with a minimum of fat, while the Italians, Polish, and Spanish nationals like the very lean cuts. In the United States, average per capita consumption of beef in the five-year period ending with 1938 was 55.2 pounds. In the previous five-year period the average per capita consumption was 48.9 pounds, or 6.3 pounds less.

The best answer to the question of whether or not we can increase beef consumption is to point to other countries whose per capita consumption of beef exceeds that of this country. Argentina leads every country in the world in the use of beef, its per capita consumption of beef and veal totaling 296 pounds. Second is New Zealand, with a per capita consumption of 182 pounds. Uruguay has a per capita consumption of 121 pounds, while that of Australia is 110 pounds. In 1938 the beef and veal consumption in this country was 61.4 pounds per capita.

As we face the coming months of 1940, we find large food supplies on hand. Our hog supply is the largest in seventeen years. Farm poultry flocks are larger than last year. Our supply of fats and oils, totaling 8,400,000,000 pounds, represents a new high figure. The fruit supply is the second largest in history. The milk supply in 1939 totaled more than 111,000,000,000 pounds—the largest on record. There is a favorable side to this picture, however. They state that all signs point to increased industrial activity and increased consumer income in 1940—more money to spend for beef and other food necessities. And that fact is encouraging.

A SOUND FARM CREDIT

By FRANK S. BOICE

I KNOW YOU HAVE BEEN CONcerned, as I have been, by the prospect of change in the Farm Credit Administration in Washington. As you know, former Governor Hill has resigned and Dr. Black has been appointed in his place, and there have been plenty of rumors of extensive changes which are to follow. I would like to read you the last paragraph of a statement issued by Secretary Wallace at the time of Hill's resignation.

"The action taken now has nothing whatever to do with detailed administration, involves no change in administrative policy of the particular agencies of the Farm Credit Administration, but is necessary in order to integrate the policies of the Farm Credit Administration and those of the Department of Agriculture to the general policy of the Government of the United States in respect to all agricultural problems."

I wish I knew what the secretary had in mind when he used the word "integrate." There is no question but that changes can be made in the FCA which will not change its fundamental purpose or efficiency. Other changes can be made which may well be disastrous, and I think we might well spend a few minutes examining this credit system of ours to see what parts of it are essential and what are not. In order to do this I shall restate the purpose of the farm credit system. It has been stated many times before and can be summed up something like this:

Its purpose is to create an adequate, dependable source of credit for agriculture at reasonable cost, and by reasonable cost I mean that the cost of money to agriculture should be commensurate with its cost to industry.

That is the purpose of this organization of ours.

In order to determine what is fundamental to the system, let us first examine the mechanics of it. To illustrate, I will use the system which you use in obtaining your money, the Federal Intermediate Credit Bank system. Similar illustration could be made of the land bank system, but the Federal Intermediate Credit Bank system will perhaps serve our purpose best.

We begin with your loan. You have obtained a loan and have signed a note and mortgage, and the property covered by that mortgage has more value than the amount of money you have received. There is a margin of security in the loan to absorb any loss which may occur in it. Some of you have ample margin, and with others the margin is a little thin, but on the average your loans have an adequate margin of security. Thus you see developed in your own loans the first "cushion" in the system.

Your notes and mortgages are each endorsed by this association of yours; that is, they guarantee to pay if you don't, and the item which makes that guarantee good is the capital structure, the net worth of this association. Referring to the report which has just been explained to you, you will see that this association has a net worth of $494,000, and that $460,000 of that net worth is invested in bonds. There's the second "cushion" in this system. And then these endorsed notes and mortgages and others like them are taken to the Federal Intermediate Credit bank where they are grouped and, with them as security, the Federal Intermediate Credit Bank issues short-term bonds called Federal Intermediate Credit Bank debentures, which are sold to the investing public of the nation. And here we have the third "cushion" entering into the picture, because you will find in the financial statement of the Intermediate Credit Bank an ample capital structure, to a large extent invested in government bonds, and all of the assets of the Intermediate Credit Bank are behind its debenture issues. This is the picture of the mechanical set-up. It is a well-cushioned channel, leading from the investment markets of the nation to you.

Now, why does money flow down that channel readily and at reasonable cost?

First, the investing public has confidence in the adequacy of the security offered and in the intelligence and integrity of the management of the farm credit system.

Second, they have confidence in the fundamental soundness of American agriculture. The thing that makes money flow to you is confidence, and confidence is as illusive as a shadow. It was here yesterday, it is gone today, and students will argue for years as to why it was here yesterday and why it is gone today without a satisfactory answer. Confi-

dence is a state of mind, and it takes very little to change the investing public from a feeling of confidence to a lack of it.

If the secretary had in mind when he used the word "integrate" the changing of farm credit to a bigger farm security, then I can see only disaster ahead of us, because sound credit and relief cannot be mixed in the same institution. I remember an old rule which I must have learned in school in a class studying banking and currency, and that old rule was something like this:

"Where two currencies circulate together, one good and one bad, the bad invariably displaces the good."

I think that rule will apply to credit and relief. Not that relief is bad nor that credit is necessarily good, but, if the two are mixed, inevitably relief will displace sound credit; for who is there among us so wise that he can decide that one of us shall pay his loan in full with interest and his neighbor shall not be required to pay at all? And if, perchance, one is found who can make this decision justly, who is there among us so persuasive that he shall convince the first man that he was justly treated when his loan was collected and his neighbor's forgiven? No, gentlemen, credit and relief do not go together in the same institution. The necessary confidence on the part of the investing public will be gone overnight.

And, if some one of you should suggest that the cure for this is the guarantee by the federal government of the general obligations of the farm credit system, then I can only answer that when that is done the co-operative credit system has been destroyed. In that event, we co-operate in sharing in the benefits of the system but we do not co-operate in sharing the risks and the liabilities of it. The basis for a sound co-operative has been destroyed.

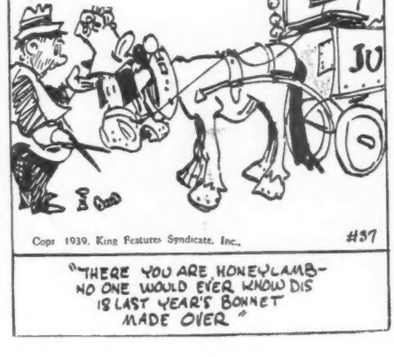
The first essential then in this system of ours is the confidence of the investing public. And now I know some of you are going to be surprised at the second essential. It is that 5 per cent stock that so many of you kicked about buying. Some of you kicked audibly and long, others just mentally kicked, but there wasn't much pleasure for any of you in the thought of buying that 5 per cent stock. Yet, if this system is to survive and go down through the years serving agriculture, it will be because of your investment in the system and the investment of thousands of others just like you. It is the stockholder investment feature which makes this source of credit dependable. Most of you have tried the commercial banks for agricultural credit. The commercial banks have proved time and time again that, when the crisis comes and commodity prices fall and deposits fall, they cannot take care of their customers. I don't mean to imply that they want to call your loan. They don't. They would like to keep it, but they are caught in the swirl of rapidly falling deposits, and to protect their depositors and stockholders they must collect their loans.

And there has been another type of agricultural credit tried. I refer to direct government lending. We tried it in the early twenties with the War Finance Corporation; we tried it in the early thirties with the Regional Agricultural Credit Corporation. As an emergency type of credit, it was a nice piece of work, but the existence of both of these institutions was terminated as suddenly as it was begun.

Of the different types of credit which I know, the least dependable is direct government lending. And that leaves us just one, the co-operative credit system. It is dependable because of the co-operative feature. The PCA's and the NFLA's reach into every section of this nation. The borrowers represent every shade of opinion, political and economic. It is in the main a decentralized system, so decentralized that no politician, group of politicians, or political party can ever hope to get control. Can you imagine any group of politicians voting anything which would jeopardize the investment of over $130,000,000 which 900,000 farmers have in this farm credit system? I cannot. And it is your 5 per cent stock purchase and the others like it which give you this assurance of freedom from political interference, from political control, and which give you assurance that credit will always be available when you need it. It is not possible for me to think of the advantages of co-operative credit without thinking in terms of the things which endanger it, which jeopardize its existence.

I have mentioned just one of the dangers to this credit system of ours—the danger of political interference or political control. There is another one which immediately comes to mind as a danger to this system of ours. I refer to subsidy. There are several elements of subsidy in this system. Part of it is legitimate subsidy; part of it, I think, is unjustified.

The Production Credit Corporation has invested in your PCA here $200,000. That is an investment of government money and is a subsidy. The Production Credit Corporation supervises your operation, and the cost of that supervision is borne by the federal government. That, again, is subsidy. The capital structure of the Intermediate Credit Bank is subscribed by the federal government. That, again, is subsidy. The cost of the Farm Credit Administration in Washington is borne by the taxpayers of the nation. There, again, is subsidy. I term these subsidies as legitimate. They were granted by the government to assist in setting up a co-operative credit system that would adequately serve agriculture. They represent the contribution of government which, when matched by the efforts, the understanding, and the loyalty of you, the member-borrowers, will make this system work. There is provision for the orderly retirement of a material part of this subsidy, and I, for one, look forward to the time when all subsidy will be gone from the system and it will be completely owned by the agriculturists of the nation.



But we have in this system one type of subsidy which I cannot defend in any way. I refer to the arbitrary interest rate of 3½ per cent which applies on land bank loans. And of course the federal treasury makes up the difference between the 3½ per cent rate and the contract rates. There is no rhyme or reason in that subsidy. The amounts involved are too small to the individual to make it vital to him, and I suspect that the politicians who voted for it rate us very cheaply when they expect something in return for their munificence, because they always expect something in return when they make us a grant of taxpayers' money. That part of it is bad enough—the fact that the politicians expect something in return—but to my mind it is not the worst feature. The worst feature is the effect on those who receive it. Those who continually seek and receive subsidy sooner or later lose their freedom to decide issues on merit, and that will happen to FCA borrowers if they are subsidized long enough and to any great extent. It will be an evil day indeed if we come to the point where we are no longer free to stand on our hind legs and yell when the fundamentals of this credit system of ours are in danger.

There is one other danger to this system perhaps greater than all the rest. It is the danger of indifference on the part of member-borrowers. If this has ceased to be an institution which you own and has become just another place to borrow, then the entire co-operative credit system is in danger. The fact that you are here today indicates that you appreciate the true significance of the system. It seems to me that self-interest dictates that you keep this system going, but I think there is a higher call than self-interest which should compel you to keep this ship afloat and directed in the right course, because some day when the going gets rough, with commodity prices low, many of your friends and neighbors will wish to come aboard. You will be

prepared for them only if you show a continuing interest in the affairs of this association of yours.

I think I have outlined to you the two essentials of this farm credit system; first, that it be kept sound, so as to retain the confidence of the investing public, and, second, that it retain its cooperative features, so that it may be at all times a dependable source of credit. I should like to pledge myself with you to fight to retain these elements that are essential.

BANG'S CONTROL BY CALFHOOD VACCINATION

By DR. R. M. GOW

Colorado Live Stock Sanitary Commissioner

IN HEARINGS ON AGRICULTURAL Department appropriations before a subcommittee of the House Committee on Appropriations, Dr. John R. Mohler, chief of the Bureau of Animal Industry, gave the following information and official figures as to the results from use of vaccine (Strain 19) in the control of Bang's disease:

". . . That vaccine was ineffective after the disease was contracted . . . that it was only efficacious before the disease was contracted. . . . We try to vaccinate the calves between the age of four and eight months . . . before they reach the age of puberty. . . .

"We now have a record of 13,240 vaccinated calves in 260 herds located in twenty-four states, and in some of these cases the calves were vaccinated three years ago, some of them two years ago, and others one year ago. We have records of 2,943 of these animals which have ended their first period of pregnancy. Of course, it takes almost a year to produce a calf, but, of these heifers, 2,826 produced normal calves and only 117 aborted. That is only 4 per cent of the entire number that we have records on that aborted.

"However, not all these abortions were due to the abortion germ. Some of them were infected with other germs, and some of them lost their calves through injury, such as bumping against a barnyard door or fence. The record of the 2,943 calves shows that only about 2 per cent were infected with the abortion bacillus."

The calfhood vaccination experiments were only made in herds which had 15 per cent or more of herd infected at the time the calves were vaccinated. From the above report, the results of the calfhood vaccinations are very encouraging.

We now find in the midwestern and eastern states a growing number of individuals advocating calfhood vaccination for the control of Bang's disease. Calfhood vaccination when properly used will be helpful in eradicating the infection. The blood-testing method of controlling Bang's disease has proved satisfactory for the owner who has a small herd who will and can keep his herd segregated and does not buy pregnant replacements. In the range country, it is impossible to keep range herds segregated, and it is not economical to contine to blood-test a range herd the number of times which is usually required to secure a Bang's-free herd.

The rangeman, after reading various reports from the agriculture press, might come to the conclusion that to control Bang's disease and secure a calf crop all he has to do is to vaccinate his heifer calves of from four to eight months of age with abortion vaccine and his troubles are over. Of course, the rangeman keeps a cow herd for the calves it produces, but the control of Bang's disease might not be the only factor in the calf crop. There might be other diseases or feed conditions that cause a short calf crop. In some sections of the western range states, the reports from blood-testing show very little Bang's disease infection. In other sections, where the snowfall is heavy and hay is fed during January, February, and March, the blood-testing shows average infection of about 10 per cent.

No cattleman should vaccinate his calves with abortion vaccine until he has first had a percentage of his cattle blood-tested to find out if his herd is infected with Bang's and that that is the cause of his short calf crop among his heifers. If he finds he has Bang's disease, as determined by the blood-test, and his infection is 8 per cent or more, he can, if he choses, vaccinate his heifer calves between four and eight months that he expects to keep in the herd. It should be remembered that vaccinating the heifer calves with abortion vaccine is not a cure-all of the calving problems nor a guarantee that the vaccinated heifer will bring a healthy calf. But, as previously stated, in herds known to be infected, up to the present time very favorable results have been obtained by vaccinating the heifer calves wtih abortion vaccine.

At the present time there are drawbacks to the use of calfhood vaccination in the control of Bang's. Various states have a multiplicity of laws and regulations governing Bang's disease and the interstate shipment of cattle. No two states have the same regulations, and, until such a time as the states and federal government can reach agreement as to uniform laws and regulations in regard to Bang's, it is a problem for the cattleman to know how he can best handle the problem.

It is known that calves vaccinated with abortion vaccine will react to the blood test for a certain length of time, and in states that require a blood test these calves could not be shipped. In the West, where cattlemen are used to branding, it has been suggested that heifers be vaccinated with a V on the left jaw as an identifying brand of abortion vaccination.

But, until such time as calfhood vaccination is recognized by the various states as a method of controlling Bang's, the cattlemen in the West and Southwest will be kept up in the air as to how best to control the disease which is not a new disease. In 1934 a national eradication program was started. This eradication program had two purposes: One was the alleviation under conditions of a severe drought and not enough feed for existing cattle; the other was disposal of diseased animals. It might be that the test and slaughter method received too much impetus at that time, and regulatory officials have gone too fast with the program without considering other methods of controlling this disease.

THE ORIGIN OF CATTLE*

By M. T. JOHNSON

CATTLE HAVE BEEN IDENTIFIED with man for thousands of years, and in histories of Europe, Asia, and Africa, where the oldest civilizations are supposed to have been, cattle have had an important part.

The word "cattle" comes from the old French word *catel*, which is derived from the medieval Latin *captale* or *capitale*, meaning goods or property. The word "ox" has been widely used in reference to cattle and is traced through several languages to the words *urox* or *aurocks*, names given the prehistoric ox.

The remains of the species of *urox*, or *aurocks*, have been found in the Pliocene deposits in Asia. This geological age is estimated to have started about 6,000,000 years ago. The prehistoric ox, known as *Bos primigenius*, varied in size in a marked degree, but as commonly found was much larger than the cow of the modern day. Skulls and limb bones of specimens standing six feet high at the shoulder have been found in the Pleistocene gravels of the Thames Valley.

There are today in England and Scotland a few scattered herds of what are known as wild cattle. These are on large estates, where they are preserved and allowed to reproduce in a state of nature. These wild cattle are assumed to be lineal descendants of the prehistoric ox. They are white in color but with dark red or black hair upon the ears and about the muzzles, have long shaggy hair and heavy upstanding horns, and are comparable in size with many of our domestic cattle.

Cattle were first used as food during the lower paleolithic (the earliest known culture period in Europe), which was some 100,000 years ago. Cattle bones have been found with human bones in the caves of early man.

It is known that cattle were domesticated in Spain during early neolithic times, about 10,000 years ago. It was not until the full neolithic (5,500 B. C.) that cattle were domesticated in northern Europe. The earliest domestic cattle were probably kept for their flesh and hides.

The cattle that were domesticated in Europe were considerably different from

* From an address given at the recent convention of the Panhandle Live Stock Association, of which Mr. Johnson is president.

the wild bull or *urox*. In the lake dwelling remains of Switzerland, well preserved bones have been found. This *Bos brachyceros* was a short-horned, small, delicately built animal; apparently he had been imported from the south. Later it appears that the native wild *urox* was tamed, and finally the two strains were crossed. These strains are thought to survive in our modern cattle, those of western and central Europe being of the *primigenius* or large type, and those of western Europe, the *brachyceros*, or small type.

Egypt was one of the oldest civilizations of which we have a good record, and cattle raising was one of the most important industries in that country in 3,500 B. C. and possibly earlier than that.

In England, cattle have been an important factor in the life of its people for hundreds of years, and it was from there we got the breed of Herefords that is so popular not only in Texas but in all the beef producing sections of this nation.

Modern development of the Herefords was started by Richard Tompkins, who died in 1728. His son, B. Tompkins, of Wellington Court, near Hereford, England, began the systematic improvement of the breed of cattle. He worked fifty years, and his son, B. Tompkins, Jr., took up the development of these cattle with his father and continued for twenty-five years after his father's death.

In 1845, the Hereford Herd Book was started by Mr. Eyton, and the Herefords were grouped into four classes; that is, mottle-faced, light grey, dark grey, and red with white faces. Within the next twenty-five years, all the colors but the last had practically disappeared.

There were no cattle in either North or South America until introduced by the people from Europe. On his second voyage, Columbus brought cattle to the West Indies, and in 1521 they were carried into Mexico from Santo Domingo.

Portuguese fishermen landed some cattle on Cape Breton Island, and they were later carried into Newfoundland and the adjacent mainland.

In Mexico, with an abundance of natural grass and ideal climate, the cattle multiplied enormously, and, by the end of the sixteenth century, there were thousands of cattle grazing over the Mexican ranges.

About 1690, some of these cattle were brought into Texas to the Spanish missions, and we all know that the minute they landed in Texas, they were in the best place in the world for them.

Henry Clay, of Kentucky, introduced the Herefords into America in 1817, but they did not make much progress until 1870 when T. S. Miller, of Illinois, pushed them vigorously and successfully.

Our commercial beef type today is developed from a base of the Spanish and Colonial cattle, crossed with breeds mainly from England and Scotland, and the Texas raised cattle have shown themselves capable of competing with cattle grown anywhere in the world.

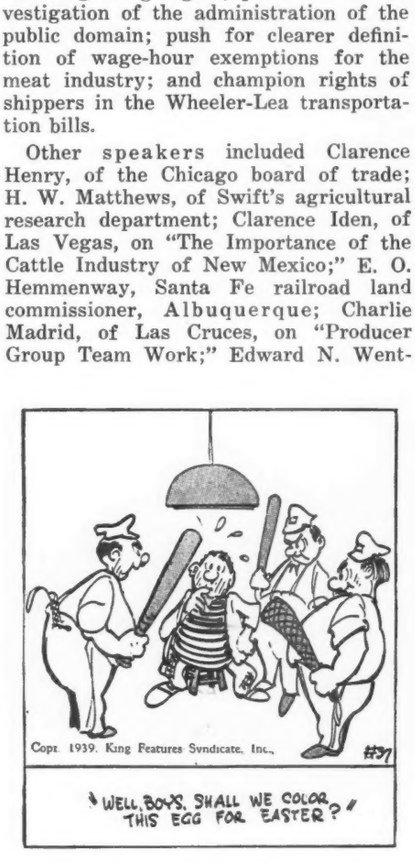
RECORD ATTENDANCE AT NEW MEXICO GATHERING

RECORD ATTENDANCE MARKED the twenty-sixth annual convention of the New Mexico Cattle Growers' Association at Gallup on March 18-19. More than 700 stockmen packed the sessions to hear from experts in live-stock and related fields.

They heard their president, Con W. Jackson, report that New Mexico's 1939 gross income from cattle and calf sales amounted to $29,079,880 and forecast that 1940 would be a more productive year for New Mexico's live-stock industry than 1939. He said that "in the past year New Mexico cattle growers invested more money in improvement of commercial herds and in range and ranch improvement than in any year in our history." He reported for the period May 1, 1939, to March 1, 1940, an increase of more than 500 members in good standing in the association.

They heard President J. Elmer Brock and Secretary F. E. Mollin of the American National Live Stock Association report on the activities of the national organization in national legislation. Both men, with the National's legislative committee, had been in Washington to fight extension of the trade agreements act, urge independence for the Farm Credit Administration, seek a Forest Service law to provide for advisory boards and a legal and sound basis for National Forest grazing rights, press for an investigation of the administration of the public domain; push for clearer definition of wage-hour exemptions for the meat industry; and champion rights of shippers in the Wheeler-Lea transportation bills.

Other speakers included Clarence Henry, of the Chicago board of trade; H. W. Matthews, of Swift's agricultural research department; Clarence Iden, of Las Vegas, on "The Importance of the Cattle Industry of New Mexico;" E. O. Hemmenway, Santa Fe railroad land commissioner, Albuquerque; Charlie Madrid, of Las Cruces, on "Producer Group Team Work;" Edward N. Wentworth, of Armour's live-stock bureau; George F. Ellis, extension animal husbandman from New Mexico state college; F. C. W. Pooler, regional forester, Albuquerque; Sherwood Culberson, of Lordsburg; Joseph Shine, head of Tanners' Council of America; Captain Burton C. Mossman, Roswell, on the "Taylor Grazing Act;" Albert K. Mitchell, of New Mexico, chairman of the National Live Stock and Meat Board; and W. C. Simpson, president of the Cattle Sanitary Board of New Mexico.



President Jackson was re-elected, as were the four vice-presidents and Miss Louise Clayton, secretary. The vice-presidents are Walter McGrath, Silver City; Joe J. Lane, Jr., Caprock; Tom Clayton, Separ; and Brownlow V. Wilson, Cimarron. New executive committeemen named were W. E. Clayton, Ancho; Bill Culbertson, Dalhart, Texas; C. C. Martin, Duncan, Arizona; Victor L. Stewart, Logan, New Mexico; R. K. Stovall, Cutter; Tom Summers, Santa Fe; Dan Thornton, Springerville, Arizona; I. K. Westbrook, Crownpoint, New Mexico; Sam Williams, Lovington; and George A. Godfrey, Animas.

Albuquerque was chosen as the 1941 meeting place.

Among the resolutions adopted were those endorsing legislation that would recognize grazing as one of the major uses of the national forests and provide advisory boards and protection to grazing preference rights; favoring with modifications bill to authorize participation of states and counties in revenues from national parks; urging issuance of individual grazing allotments by the Taylor grazing service for a period of not less than ten years; opposing enlargement of national parks area; endorsing a bill by Senator McCarran calling for investigation of the public land situation; and opposing consolidation of Taylor grazing service and Forest Service.

The stockmen opposed processing taxes on live stock and opposed "either state or federal laws that will limit the outlet of our products through unfair taxation." They asked that the Farm Credit Administration be returned to its former status of independence and favored the McCarran national animal theft bill to make a federal felony of transporting stolen live stock across state lines.

"Absolute opposition" was voiced to extension of the Reciprocal Trade Agreements Act, but "if the act be extended, provision shall be made for ratification of agreements." Legislation to relax wage-hour regulation on packers to permit proper exemption in peak load work periods was endorsed.

On the transportation problem, the New Mexico stockmen opposed the hours-of-service, car-limit, and full-crew bills; asked that all competitive transportation systems be placed under uniform regulation; opposed increase in railroad freight rates; asked that through routes be established to correct "present wasteful transportation on account of moving

traffic in circuitous routes;" and favored repeal of the long-and-short-haul clause of the Interstate Commerce Act.

The association "viewed with alarm and resentment the interference and use of threats by administrators of some of the federal agencies in matters that are wholly or in part state affairs."

UTAH CATTLEMEN HOLD SALT LAKE CITY PARLEY

UTAH STOCKMEN ON APRIL 5-6 held in Salt Lake City what was probably the best of their twenty-two annual conventions.

In his annual address, President L. C. Montgomery outlined some of the major problems confronting the industry: big game, herd improvement, wage-hour law, marketing, and too high rail rates.

"We have taken the attitude of an underdog too long," he said. "Producers such as ourselves should hold their heads high, for they are this state's economic aristocracy. The dollars we start rolling from the earth support the banks, the business and professional men, and the merchants . . . and we are the most important division of the Utah agricultural industry."

Emphasizing the deer problem, he said that deer have taken Utah forage formerly eaten by cattle and are eating about half the forage consumed on national forests. In 1920, he said, there were 172,000 cattle and 13,000 deer on Utah forest land, while today there are 107,000 cattle and 130,000 deer.

C. N. Woods, of Ogden, regional forester, admitted that big game animals are responsible for some range deterioration on about 9 per cent of the national forest land but contended there are not too many deer on the other 91 per cent. His figures were: 115,000 head of deer on national forest lands and live stock equivalent to 1,250,000 head of sheep.

Addressing the initial session, R. H. Rutledge, Washington, D. C., grazing director, proposed consolidation of agencies concerned with public land and its resources as a means of saving 25 per cent of administrative costs without sacrificing use or efficiency. He suggested that all public lands and resources should be handled by regional directors out of one office.

Secretary F. E. Mollin of the American National Live Stock Association, in his talk before the 300 stockmen, attacked the reciprocal trade program because it is not confined to commodities whose importations we need, but cuts tariffs indiscriminately.

Other speakers of the first day's session included Chesley P. Seely, regional grazier; Ward C. Holbrook, Utah State Farm Bureau president; C. A. Mattson, of Richfield; J. A. Scorup; and M. Vern Woodhead, assistant secretary of the Salt Lake Chamber of Commerce.

Speakers at the Saturday session included John T. Caine, III, of the Chicago Union Stock Yards; Professor Harry H. Smith, Utah State Agricultural College; J. N. Conover; Selvoy J. Boyer, state agriculture co-ordinator; Paul H. Hunt, Keetley; L. E. Ellison, Layton; and William Peterson, director of extension, U. S. A. C.

The feature resolution, passed at the convention's closing session, read:

"Resolved that we demand that the present forest and public domain officials cease their dilatory, indecisive tactics in regard to the reduction of big game on national forests and public domain and assume the same jurisdiction in the reduction of deer and elk as practiced in the reduction of live stock. . . . We further demand that steps be taken to reduce the number of deer and elk to the carrying capacity of the ranges, giving due consideration to the value of livestock interests as related to each community."

The growers, in registering their opposition to the reciprocal trade agreements, resolved their appreciation to Senator William H. King "for endeavoring to amend the act to place a definite check upon the making of trade agreements in the future."

Other resolutions passed included:

Thanks to the Sears-Roebuck Company for contribution of Advance Domino III, grand champion Hereford bull, stabled at the Utah State Agricultural College, for improvement of stock breeding throughout the state.

Opposition to the 2-mill tax on horses and cattle, presumably for eradication of predatory animals and rodents, with the president authorized to prepare amendment for presentation to the 1941 legislature.

Commendation of Farm Credit Administration for its sound financial policies and request to Congress to restore the FCA to its former status as an independent agency.

Opposition to creation of new monuments or recreational areas or enlargement of existing parks or acquisition of range lands by other governmental agencies unless approved by legislatures of state where proposed park is to be located.

Request for amendment of Wages and Hours Act to exempt handlers of live stock and live-stock products during peak movements.

Recommendation that banking houses and other businesses be allowed associate memberships in the organization.

Pledging support to 4-H club and Future Farmers of America activities.

Election resulted in choosing of L. C. Montgomery, of Heber, for his third consecutive term as president; continuation of the services of vice-presidents: J. A. Scorup, Moab; Joseph T. Finlinson, Leamington; H. L. Allred, Roosevelt; Frank Paxton, Kanosh; John King, Boulder; and George O. Webb, Richmond. Robert V. Broadhurst, of Salt Lake City, was renamed as secretary; William H. Thayne, Logan, chairman of the executive committee; and B. N. Conover, Ferron, and Enos Stookey, Clover, committee members.

F. E. Mollin, secretary of the American National Live Stock Association; L. C. Montgomery, Utah association president, and R. H. Rutledge, director of Division of Grazing.

TALK OVER PLANS FOR PROFITABLE RANCHING

BETWEEN 500 AND 600 RANCHmen and farmers attended a statewide meeting in Denver April 5 to consider more profitable methods of producing live stock.

A few of the highlights of that meeting, which was arranged by a committee headed by Director F. A. Anderson of Colorado State College extension service, are given:

Field Bohart, Jr., of Colorado Springs, president of the El Paso County Stock Growers' Association, emphasized that there are two phases of the live-stock business that the stockman can do something about: Cattle and herd management and the general ranch or plant operation.

"Your ranch," he said, "is the plant in which you are producing the pounds of beef that you expect to sell. The best raw materials in the world may be processed and yet sold at a loss on a satisfactory market if the plant operations are inefficient. After all, your ranch is simply a factory for the production of pounds of beef."

He added the following points:

Good bulls are necessary and should be selected with an eye to strength where our cows are weak. Keep culling the cow herd and rid the herd of "boarders" and undesirable cows. Keep bulls in good shape and try to have a more uniformly aged bunch of calves through taking the bulls out of the herd for a time.

Provide supplementary feeds that are important to range cattle. Remember the importance of an adequate water supply. Close attention for the cows at calving time and special care for heifers dropping their first calves. Vaccinating, branding, and dehorning at the proper times. Pay close attention to losses and try to eliminate their causes.

W. M. Sandstead, of Willard, Colorado, who spoke on the advantages of sorghums, said:

"The droughts that have frequently made corn an uncertain crop in many

sections of the country have increased dependence on the grain and forage sorghums as feed for live stock in many areas. Sorghums are the chief forage crop of the eastern Colorado plains.

"We are planting 100 acres of sorghums on fallowed ground this year. We aim to cut down our wheat acreage and increase our sorghum acreage. We believe summer fallow practice is as good for a spring crop as for fall wheat."

E. F. Dally, of Merino, Colorado, spoke on efficient hog production. President E. G. Peterson of Utah State College, who spoke at the evening banquet, stressed the importance of western livestock development and paid tribute to the agricultural leadership of President Charles A. Lory of Colorado State College, particularly in the fields of reclamation and water conservation. Many other men who are prominent in the production of live stock took part in the Denver meeting.

Ray Reynolds, Longmont, Colorado, feeder, recommended among other things:

Analyze your feed and see how many cattle can be taken care of. Don't buy too many cattle for your home-grown feeds, including wet pulp. Try to figure the class of cattle best suited to the feeds that you have. Look for a string of feeders that doesn't cost too much in comparison with other cattle. Use soda in feed and water when cattle first come in. Start feeders off slowly. Fill with cheap feed and plenty of hay and water. Keep cattle in one location as much as possible. Changes in feed and surroundings are a shock to cattle systems.

N. C. Warren, Fort Collins lamb feeder; William Phillips, of the Federal Reserve Bank, Denver; and L. M. Pexton, vice-president and general manager of the Denver Union Stock Yard Company, were among other speakers.

Taking part in a round-table discussion were: Superintendent J. F. Brandon, United States dry land field station, Akron; Extension Agronomist R. H. Tucker; Extension Animal Husbandman A. C. Allen; Extension Soil Conservationist T. G. Stewart; H. B. Osland, head of the animal husbandry department, Colorado State College; E. W. Nelson, head, range and pasture management, Colorado State College.

Presiding were: President A. A. Smith of the Colorado Stock Growers' and Feeders' Association, Sterling; and President M. E. Noonen, of Kremmling, Colorado, Colorado Wool Growers' Association.

LOUISIANA CATTLEMEN IN NINTH ANNUAL MEET

REPRESENTATIVES OF LOUISIana's $15,000,000 cattle industry met in Alexandria on March 19-20 for the ninth annual convention of the Louisiana Cattlemen's Association. They re-elected Arthur L. Gayle, Lake Charles, as their president, placing that matter of business ahead of all others as a tribute to Mr. Gayle.

J. D. Cooper, Flora; G. O. Patterson, Tallulah; L. A. Borne, Bouie; A. R. McBurney, Welsh; and J. W. Bateman, Baton Rouge, were renamed as vice-presidents. W. T. Cobb, University, was continued as secretary.

Louisiana has recently made the most rapid and phenomenal improvement in the blood strains of its cattle of any state in the nation, President Gayle said in his annual address, read by Vice-President Cooper. Backing up this statement, Horace McDowell, general manager of the southeastern division of Swift & Company, reported that "probably 9,000 purebred bulls have been brought to the state in the past three years—a remarkable achievement."

Other speakers were J. D. Cooper; A. G. Lee, dean of the college of agriculture of Louisiana's state university; Dr. T. C. Dowell, director of experiment station work; Dr. W. A. MacDonald, of the Bureau of Animal Industry; Association Secretary W. T. Cobb; and Ralph S. Cooper, publisher of *Coastal Cattleman.*

The Louisianians adopted resolutions—

Asking for clarification of the Wages and Hours Act on the question of exemption for the meat industry in peak load periods;

Opposing extension of the Reciprocal Trade Agreements Act;

Favoring suspension of agricultural imports during periods when domestic prices are below parity;

Endorsing McCarran animal theft bill to make federal felony of transportation of stolen live stock across state lines;

Reiterating opposition to modification of embargo applying to countries having foot-and-mouth disease;

Opposing government spending "not vital to carry on essential functions of government;"

Favoring increase in car levy for National Live Stock and Meat Board for advertising, and urging Institute of American Meat Packers to consider meat advertising question;

Pledging continued support to American National Live Stock Association and approving its policies and activities.

Recommendations of the association's legislative committee to oppose "any legislation imposing a tax on live stock" and request appropriation of $10,000 for 4-H club activities were approved. The association also asked for additional help from Biological Survey for wolf control.

In 1941 the convention will again be held at Alexandria.

IDAHO GROUP ADOPTS NOVEL CO-OPERATIVE CALF PLAN

THE IDAHO CATTLE AND HORSE Growers' Association has adopted the "Idaho Calf Plan," to give young people an opportunity to gain some practical experience and to make some money and to finance at the same time the activities for needed association work.

The plan emphasizes "opportunity for the youngster"—4H Club and FFA members. It starts the boy off with a calf donated by an association member, gives him the care of the calf, and rewards him with two-thirds of the proceeds on its sale.

From a bulletin sent out by F. L. Winzeler, secretary of the Idaho association, we summarize the plan:

Method of Obtaining Calves.—Several members in a local organization give a calf; donors are rotated each year; calves may be spring or fall ones, but probably fall calves will work out more successfully; state organization will cooperate to round up the calves; list of donors will be sent to county agents.

Distribution of Calves.—4H Club, FFA, and other enterprising youngsters need calves to feed out and for their projects and to show at various fairs and shows; county agents, instructors, and club leaders know the deserving boys; a committee of three decide upon eligibility of the recipient.

Financial Arrangements.—Boys agree to feed the calf, keep accurate records, and abide by rules of the committee; average cost of feeding, according to 4H Club records, is $45 when using available farm feeds; calf is worth about $30 when boy receives it; therefore a two-third boy interest and one-third association interest seems fair.

The Sale.—In the fall, after the fairs and stock shows, all calves are gathered for a sale event; business men, packers, etc., invited to bid; cattlemen in surrounding territory called for a general get-together; special events.

Distribution of Receipts.—The two-thirds to the boy and one-third to the association should give the boy a profit on his feeding operation.

Publicity Value.—Local papers will run stories; tours can be held; pictures taken; cattle industry will be brought before public; constructive breeding programs will be carried out; valuable experience will be gained by the boys—the future cattlemen.

Co-operation Available.—County agents, FFA instructors, 4H Club leaders available to help out any boy feeding a calf.

NOTES ABOUT MEETINGS

A RESOLUTION WAS ADOPTED by the Mohave County (Arizona) Stock Growers' Association at a meeting April 6 at Little Cane Springs on the Big Sandy asking the state land board to continue its "clear-cut policy of respecting the rights of state land lessees." Another opposed placing the Grazing Service in the Department of Agriculture. "Much of the land in Mohave County is under Taylor grazing district control, and they like the way it is handled by the Department of the Interior," says Mrs. J. M. Keith, secretary of the Arizona Cattle Growers' Association in her "News Letter." She adds: "It was interesting to compare their meeting Saturday to one held four years ago at Kingman, when the association was just getting started. At that time they had few members and they owed some money. . . . Now they have a good sized balance in their treasury and have made a fine contribution to the American National Live Stock Association." Back in the interesting past of Mohave County, says Mrs. Keith, "there was an old-time cowman who branded IC. A man came into the country who probably thought he would build up an outfit quickly, so he started the ICU iron. The old man, not to be outdone, then put on his cattle ICU2. There was plenty of law on the statutes even back in the very early days, but the country was big and traveling rough, so sometimes on old settler would find it necessary to take the law into his own hands and not trouble too much about what was in the books."

SALT FOR ELK

The Oregon State Game Commission will salt some of Oregon's ranges this fall to try to lure elk away from deeded privately owned land. This action was decided upon at a recent meeting of that body in Portland, according to *Oregon Cattleman*, which "hopes that more sportsmen from the western part of the state will come in to the particular parts of eastern Oregon that are overgrazed by deer and elk and study actual conditions." The magazine lists the area north of the John Day River in Grant County and the Murderers Creek section near the south fork of the John Day River as needing attention if the mule deer herd there is to be maintained. "There are also a few critical areas where elk are doing heavy winter damage to private taxpayers. . . . The elk problem will certainly be one of the major headaches of the game commission and the Forest Service in a few years, for these animals are as smart as a mule and can outthink and outfigure the average hunter without half trying."

PANHANDLE GROUP MEETS

Members of the Panhandle Live Stock Association, meeting at Amarillo, Texas, recently re-elected M. T. Johnson, president; Jack Roach and John Fain, vice-presidents; and Grover Hill, secretary. Speakers included Jay Taylor, Amarillo, second vice-president of the American National Live Stock Association and member of the National Live Stock and Meat Board; Joe Sneed, Amarillo, president of the Texas and Southwestern Cattle Raisers' Association; Association Secretary Grover Hill; and Colonel Ernest O. Thompson, Amarillo, railroad commissioner of Texas. Resolutions urged resistance to increased government expenditure; amendment to increase truck-load limit to 14,000 pounds; opposed ratification of reciprocal trade agreement between this country and the Argentine; commended National Live Stock and Meat Board; favored revised standards for beef grading; and favored confinement of Bang's testing to dairy and purebred herds.

COLORADO GROUPS

Activities of the Cattlemen's Association of Morgan and Associate Counties (Colorado) will be extended with a campaign for new members in Weld, Logan, Adams, Arapahoe, and Washington counties. The group voted a $200 reward for arrest and conviction of cattle thieves. . . . Hereford cattlemen who organized the Colorado Hereford Breeders' Association in Denver recently, elected Harold Fulscher, of Granby, president; Stafford Painter, of Roggen, vice-president, and Kermit Karst, of Denver, secretary. Directors were chosen and by-laws adopted.

IDEAL QUARTER-HORSE

Tentative specifications for an ideal Quarter-Horse, submitted by a committee of the new Quarter-Horse association organized in March at Fort Worth, Texas, were: head—small ears, heavy-set jaws, kind and intelligent eyes set wide, and very short head; neck—full, medium in length, rather well rounded; shoulders—deep sloping, with adequate withers; chest and forearms—deep and wide through chest, with great heart girth, with wide-set forelegs; extreme musculature in forearm down to knee, short cannons and good short pasterns; back—very close coupled, with full loin; rear quarters—coupling high, croup short and steep, long from coupling to hock, great depth of stifle and not cut up in flank; stance—legs always well bunched, hocks well under quarters; bones, legs, and feet—good hoofs, good, substantial flat bone, clean legs, with no indication of unusual hair growth on fetlocks; height and weight—around fourteen-two to fifteen-one hands; around 1,000 to 1,200 pounds.

Dan Casement on a good kind of Quarter-Horse for cow-work.

CALIFORNIA COUNTY MEETINGS

Cattlemen from California's Contra Costa and adjoining counties, meeting recently at Danville, heard Louis Rochford, extension live-stock specialist of the University of California; J. P. Fairbank, engineering expert at the university; Secretary John Curry of the California Cattlemen's Association; W. B. Stout, of the Department of Agriculture; and Charles Wood, California Cattlemen's Association director. . . . Plumas-Tahoe Cattlemen's Protective Association members at a meeting at Bangor, California, renamed officers as follows: Roy Farrington, president; Clifford McMillin, secretary; Milgon Rogers, Henry Gravier, and Jim Scott, advisory board members. . . . The sales tax was removed recently from live stock sold in California for breeding purposes. California live-stock associations pressed for such exemption.

NEW MOUSE RIVER (N. D.) ASS'N

The Mouse River Cattlemen's Association was organized in March at Minot, North Dakota, "for the purpose of developing a spirit of co-operation, friendship, and mutual understanding among the producers of beef type cattle in the Mouse River territory; to aid in the development and improvement of our herds, to the end that there will be produced in our territory a uniform high type of cattle that will be attractive to and popular with feeder buyers; to protect our members from cattle thieving." Officers are M. D. Graham, Burlington, president; John C. Eaton, Minot, vice-president; and D. A. Nelson, Minot, secretary-treasurer. Sixty cattlemen made up the meeting, representing 8,500 cattle. Speakers included Governor John Moses, who commended the cattlemen for their enterprise in organizing the association; Dr. J. T. E. Dinwoodie, Fargo, secretary of the state's AAA committee; A. B. Wije, Fargo; and John C. Eaton. Named on the board of directors were: Axel Kongslie, Towner; M. D. Graham; Henry Niewoehner, Upham; Percy Schultz, Towner; John C. Eaton; Erling P. Nicolaisen, Max; Fred Bryans, Carpio; D. A. Nelson; Peter Nermoe, Upham; C. H. Parker, Minot; George Goettles, Donnybrook; and Charles F. Adams, Lansford.

KANSAS CITY MEETING

Stockmen, farmers, bankers, packers, and railroad men assembled under the auspices of the Chamber of Commerce

of Kansas City recently to hear talks on production, financing, and marketing of live stock. Speakers included M. A. Limbocker, Emporia, Kansas, banker, who discussed credit; E. W. Phelps, Kansas City manager of Swift and Company, on finish in beef; and D. H. LaVoi, of the National Live Stock and Meat Board, Chicago. Other talks were made on production of pork, value of good breeding in beef cattle, pasture improvement, and prospects for supplies, demand, and prices for live stock in 1940.

WORLD'S LARGEST BARBECUE

A thousand head of cattle will be barbecued in pits dug outside the Louisiana State University to give substance to 250,000 buns in the largest barbecue in history. Three hundred barrels of lemonade will be accessible for parched throats at the great feast. "When I am inaugurated governor, we won't have an inauguration ball . . . I am going to give a big barbecue and everybody in Louisiana is invited to attend." Such were the words of Governor-elect Sam H. Jones, who will be inaugurated May 14 at Baton Rouge. Preparations are being made to feed 125,000 people, the greatest crowd in the capital since the funeral of Huey Long.

'SAVE THE BARNYARD BABIES'

The American Foundation for Animal Health is campaigning to "save the barnyard babies" this spring. "The same measures of sanitation and diet control," it says, "which have reduced infant mortality so remarkably, will work just as effectively in reducing the alarmingly high barnyard death rate which occurs every spring among colts, baby pigs, calves, lambs, and chicks. As high as 40 per cent of all pigs born each spring in some areas die before reaching marketable age. Thousands of colts succumb to joint ill, navel ill, or digestive disorders. Innumerable calves die in infancy from calf scour, pneumonia, diphtheria, and feeding disorders. Steps to prevent these losses include clean sanitary housing for the birth of young animals; proper feeding of the mother animals, with especial regard to possible vitamin and mineral deficiencies; moving the young to clean ground as early as possible; immunization of young pigs against cholera as soon as practicable; and early veterinary diagnosis at the first signs of illness or unthriftiness."

RESOLUTION OF YAVAPAI GROUP

At a meeting of Yavapai Cattle Growers' Association (Arizona), held the latter part of March, a resolution adopted favored "amending the law governing the Forest Service to provide for recognition of grazing as one of the major purposes of the act; to recognize grazing preferences as rights entitled to legal protection; and to provide for a proper legal status of duly elected advisory boards which would advise with the Forestry Service officials on all problems and regulations connected with the grazing of live stock; and, until such amendments are made to the law, opposing consolidation of the Bureau of Grazing and the Forest Service."

SWEETWATER MEETING

At the annual meeting of the Sweetwater Live Stock Association at Ryland, Colorado, on the western slope of the White River National Forest, Jim Stephens and Clarence Stephens were renamed president and secretary, respectively. Among the speakers at the convention was Claude Rees, Western Slope Cattle Growers' Association secretary, who talked briefly on the work of his organization and described the new limits provisions established by the forestry department.

COW BELLES

"Cow Belles" is a new Arizona organization in which women in Cochise County are eligible for membership. The organization, says the Arizona Cattle Growers' Association "News Letter," is being besieged with requests from other states asking if the name is a trade-mark. "They think 'Cow Belle' is about the niftiest name that could be applied to a cow-woman." The organization meets once a month at the home of some member, "each bringing food for a 'pot-luck' luncheon, which sometimes turns out to be mostly dessert, and sometimes mostly meat but always a good luncheon anyway and loads of fun." The Cow Belles group is tied in with the Arizona Cattle Growers' Association.

ASSOCIATION EXPANDS

Expansion of membership to include anyone interested in the welfare of the live-stock industry was voted at a meeting of the Douglas County Live Stock Association, (Colorado), previously considered a forest permittee organization. The action doubled membership. A new set of by-laws included a provision for payment of $200 reward for arrest and conviction of anyone stealing live stock belonging to Douglas County Live Stock Association members. Chief speaker at the meeting was F. E. Mollin, secretary of the American National Live Stock Association. Other speakers included Dr. R. M. Gow, Colorado Live Stock Sanitary Commissioner, and Secretary Ben Fraser of the Elbert County Live Stock Association.

NO TATTOOING

State Live Stock Commissioner Will J. Miller has ruled that Cowley County, Kansas, cattlemen who tattoo their brands instead of burning them into the hides with a hot iron or acid cannot register with the state and be included in the brand book. Mr. Miller is also secretary of the Kansas Live Stock Association.

GOVERNMENT ISSUES REPORT ON OSAGE AND BLUE STEM

PASTURES IN THE OSAGE AND Blue Stem sections of Kansas and Oklahoma have been in about average demand this year, according to the Agricultural Marketing Service. Percentage of available pastures leased by April 1 was a little larger than last year in the Blue Stem section and about the same in the Osage.

A smaller number of cattle will be shipped in than last season. In 1939, there was light demand for pasture to April 1, but drought in Texas forced a heavy movement of cattle, and pastures were well filled by June 1. Recent rains have improved Texas pastures, and it is expected that spring shipments will be smaller than a year ago.

Condition of the pastures in both sections is not so favorable as a year ago. Cold delayed growth of new feed. There is, however, a fairly good supply of old grass. Subsoil moisture is deficient and stock water is rather low. More rain is needed to make good feed for the season.

Lease prices this season are about the same as last year in the Blue Stem, but slightly lower in the Osage. Acreage guarantees per head are slightly less than they were for the past three years in both sections. In the Blue Stem, most of the lease prices for steers and cows are $5 to $7.50 per head, with an average of about $6.50; for young cattle, $3.50 to $5.50 and average of about $4.50. Average guarantees run from 4 to 6.5 acres for cows and steers and 3 to 5 acres for young stock. In the Osage, leases for steers and cows are $5 to $7, averaging $5.70; for young cattle, $3 to $5, averaging $4. Acreage guarantees for cows and steers, 5 to 7 acres; for young stock, 3 to 5 acres.

CALENDAR

MAY

15-16—Cattle and Horse Raisers' Ass'n of Oregon Convention, Pendleton.

17-18—Washington Cattlemen's Ass'n Convention, Omak and Okanogan.

20-21—Idaho State Cattle and Horse Growers' Ass'n Convention, Boise.

20-21—Western North Dakota Stockmen's Ass'n Convention, Minot.

23-25—Montana Stock Growers' Ass'n Convention, Butte.

JUNE

4-6—Wyoming Stock Growers' Ass'n Convention, Lander.

4-6—Intermountain Junior Fat Stock Show, North Salt Lake, Utah.

10-12—South Dakota Stock Growers' Ass'n Convention, Ft. Pierre.

13-15—Nebraska Stock Growers' Ass'n Convention, Valentine.

13-15—Nebraska Junior Stock Growers' Convention, Valentine.

20-22—Colorado Stock Growers' Ass'n Convention, Meeker.

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F. E. MOLLIN.....*Managing Editor*
DAVID O. APPLETON.....*Editor*
JAMES E. POOLE.....*Market Editor*
LAWRENCE F. MOLLIN.....*Business Manager*

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THE BANG'S PROGRAM

FOR SEVERAL YEARS PAST THE Bureau of Animal Industry in its annual reports has made fleeting references to the fact that a rather extensive experiment is under way for the control of Bang's disease; namely, the calfhood vaccination plan. We can appreciate the fact that it is unwise to use snap judgment in a matter of this kind and that therefore little has been said officially about results, awaiting the time when more definite conclusions could be reached.

It is therefore encouraging to note in the testimony given before the subcommittee of the House Committee on Appropriations by Dr. John R. Mohler, chief of the Bureau of Animal Industry, that the experiments are now attaining some official standing, both by virtue of the time which has elapsed and by the increasingly good results which are showing up. We quote a sentence from the record: "The record of the 2,943 [vaccinated] calves shows that only about 2 per cent were infected with the abortion bacillus."

On the basis of Dr. Mohler's statement, set out fully on page 28, only 2 per cent of the herd would have to be destroyed in order to maintain a disease-free status, as compared with the staggering and continued losses which have accrued in herd after herd where unsuccessful attempts to eradicate Bang's disease through the blood-test method have been made.

Granting that further experimentation is desired in order to show just how best results can be obtained from the use of the vaccine, it seems time now that bulletins should be issued by the department for wide distribution in order that people may know what to expect from this method of control, how and under what conditions it should be applied, etc.

Complaints are made that calf vaccination is being urged in herds in which there is no disease and that it would be much better to leave such herds untouched. Certain states will not even permit the use of the vaccine within their borders, although no vaccine can now be manufactured except that based on the culture—Strain 19—furnished by the government. Under this procedure there is clearly no need for such laws. In some sections of the East the vaccine method has been officially recognized as an alternative method of control. Knowledge never hurts anyone, and the country should know just what is what about using vaccine for the control of Bang's disease.

It is not out of place to state here that while the blood-test method has been in use for more than a quarter of a century it has not yet reached the point where it can be relied upon. Thousands of cases could be cited to prove this assertion. Many, if not most, of the large dairy herds in the country have had to abandon this method of control as impractical for their type of operation. It is an unfortunate fact that many veterinarians have a complex against the use of vaccines, possibly because they are applied in many instances by untrained individuals and possibly because they avoid the repeated testings which have made so much work for the fraternity.

Another reason that full information on the subject is essential at this time is the fact that, despite the unsatisfactory results obtained with the blood-test method, pressure is still being applied for the start of compulsory area testing work. Of course it is not stated in the beginning that it is to be compulsory, but that is the inevitable end of any area project.

The United States Live Stock Sanitary Association adopted on December 8, 1939, regulations providing for modified accredited Bang's disease-free areas. These were approved by the Bureau of Animal Industry on December 12. They provide that all cattle six months of age or over except steers in any given area shall be tested. Any infected herds found are to be placed in quarantine and the cattle in them retested for Bang's disease at intervals of from thirty to ninety days until all of them pass two consecutive negative tests and pass a further negative test not less than six months from the time of the second negative test — an apparently endless procedure, as has been demonstrated many times.

As a check upon the use of vaccine, the regulation further states:

"And further provided that herds in which Bang's disease vaccine is being employed and in which any cattle six months of age and over are positive to the test for Bang's disease shall be maintained under strict quarantine, except calf vaccinated herds in range and semi-range areas, where it is not practical, and for purposes of herd percentage shall be classed as infected herds. . . ."

This is a strange requirement to bear the approval of the same Bureau of Animal Industry which issues the culture for the vaccine and completely controls its manufacture.

The most amazing part of the regulations, however, is that an area is to be considered accredited when the total number of reactors therein does not exceed 1 per cent nor the herd infection exceeds 5 per cent. In other words, an area may be officially declared to be disease-free although it might contain many herds with 5 per cent infection. This is the come-on by which it is hoped to entice the beginning of area work in areas where there is little trouble with Bang's disease and no occasion for a tremendous testing program. It is to be regretted that the Bureau of Animal Industry, after standing out for years against the unwise pressure for this type of work, should now have weakly acquiesced in a program that seems to have more of make-work and cattle-reduction about it than it does of disease eradication.

So far as the range cattle states are concerned, the first thing to do is to find out all there is to know about calfhood vaccination and in the meantime continue to resist all efforts to begin area testing work, no matter what glib promises may be made in connection with it.

ARGENTINE TRADE TREATY

IF THE LIVE-STOCK JOURNALS published in Argentina speak the language of the live-stock grower of that country, as we think they do, then that man is of much the same breed as his North American competitor, because certainly the papers which reach our desk, such as the *Times of Argentina* and *La Res*, display an admirable frankness in discussing the problems of the Argentine live-stock growers. It is also evident that the Argentine government itself was more frank in discussing the reasons for abandonment of the proposed Argentine trade agreement than was the State Department of our own country, whose release on the subject said practically nothing.

In the issue of *La Res* for January 20, 1940, is published the official release of the Argentine government on the abandonment of negotiations, which contains many statements of particular interest to American live-stock growers. The following excerpt is particularly illuminating:

"Precisely in the most characteristic products of our exportation, such as canned meats and linseed, it limited the tariff reduction to a quota which in the case of linseed was very much lower than our shipments during normal years."

This would infer that the quota proposed by the United States officials on canned meats was not so limited, and we find it at least interesting to know that our officials again sought to use the live-stock industry as the main bait

in making a trade agreement that would be advantageous to the capitalistic industries in the eastern part of our country.

The statement also refers to "leaving on one side for the moment its justified desire for the removal of the obstacles in force on the United States market against the importation of fresh meat."

Commenting editorially on the abandonment of negotiations, *La Res* states as follows:

"But it is only fair to say as well that we were not so greatly surprised at the failure, which we hope may turn out to be only a momentary one. As a matter of fact, we have never ceased to point out that, in our opinion, the ratification of the sanitary pact was a prior condition to the conclusion of any agreement that would prove of real benefit."

It has been apparent all the time that the main objective of Argentina was a market for her surplus dressed-meat products. Undoubtedly when it was decided to enter into negotiations for a trade agreement—and no doubt conferences on the subject had been under way for many months prior to the official announcement of August 23, 1939—it was still hoped that a miracle would happen and the long slumbering Argentine sanitary convention suddenly brought to life and ratified so that dressed beef and dressed lamb could be included in the official list of commodities on which the United States was willing to consider tariff reductions.

The publicity given to the insignificant purchase of 48,000 pounds of canned beef for the United States Navy from an Argentine firm in May, 1939, by the President, the State Department, and the Navy Department was doubtless in the nature of a trial balloon to test sentiment on the part of the public at large in the hope that a reaction favorable to cheap Argentine beef would blossom forth and induce the United States Senate to consent to the miracle of ratification. The reaction, however, was the other way and showed clearly that the people of the United States think too much of their own source of meat supply to risk any experiments that may be beneficial to a foreign people but which hold the germ of great and costly damage to one of their own major industries.

It seems hardly necessary to repeat the old argument as to why the sanitary embargo which has been maintained in this country since January 1, 1927, cannot safely be modified. Doubtless it is true that there is no foot-and-mouth disease in the Province of Santa Cruz, which is the great sheep-raising section in southern Patagonia; but, when one recalls that in the early days of agitation for the ratification of the convention it was claimed that there was no disease in any part of Patagonia and that this claim is now admitted to be false, no better argument need be advanced and no greater justification given for the uncompromising stand taken by the American National Live Stock Association throughout the controversy in this regard.

There are doubtless other similar spots in the sixty odd countries of the world which unfortunately have foot-and-mouth disease which are not at the moment sources of infection. It would be manifestly unfair to those countries to make an agreement with Argentina, singling out that one country for preferred treatment in this respect. It has never been clearly established as to whether or not the most-favored-nation principle would apply and thus remove the discrimination, but if so it would at once increase the risk some sixty odd times.

The efficacy of the present embargo has been demonstrated. In the more than thirteen years since it has been in effect we have had only one minor outbreak of foot-and-mouth disease and that due to a violation of our sanitary regulations in bringing ashore garbage from a ship that had just returned from Buenos Aires. It is clear that if we attempted so to modify the provisions as to permit entry of meat products from areas temporarily declared to be free of foot-and-mouth disease it would be only a question of time until our own herds and flocks would become infected.

If we ever reach the time when we cannot adequately supply our own people with meat products, then perhaps we will have to do what the importing nations of Europe do today—relax our restrictions and suffer the consequences. But that time is not here, and in the meantime the futility of making any worth while agreement with a country whose surpluses are in a large measure competitive to products which we produce here at home, many of them in adequate supply, has been made fully apparent by the abandonment of the attempted trade agreement negotiations.

PACT ISSUE NOT DEAD

WE LOST THE FIGHT ON THE Reciprocal Trade Agreements Act. The vote in the Senate on extension of the act was 42 for and 37 against; the vote on the Pittman amendment, which called for Senate ratification of trade treaties, was 41 for and 44 against.

The live-stock industry fought to kill the trade pact law or to return treaty-making power to Congress by way of an amendment that called for either Senate or congressional approval. It went into the fight because under the act cattle duties have already been cut drastically, proposals have been advanced for cuts on canned beef and numerous by-products, and meat supplies are on the increase and foreign outlets curtailed. It fought also on the general ground that agriculture cannot continue to give away its market to the world for the benefit of industry.

The officers and legislative committee of the American National Live Stock Association were in Washington to fight for the western cattle industry. Senators Pittman and McCarran, of Nevada; O'Mahoney, of Wyoming; Adams and Johnson, of Colorado; Vandenberg, of Michigan, and Capper, of Kansas, are among those to be commended and thanked for their part in the effort to return the treaty-making power to Congress. In the House, Representatives Coffee of Nebraska; Dempsey, of New Mexico; and Horton, of Wyoming, were among those who made a stand against the Reciprocal Trade Agreements Act.

Note the small margin by which the trade agreements act proponents won: five votes on extension of the act; three, on the Pittman amendment. That shows the unmistakable trend of sentiment against the present reciprocal-trade-agreements method of dealing with foreign trade. It foreshadows an ultimate check on executive authority to write down tariff rates, and eventually means the discontinuance of a program that has been carried on at the expense of agriculture.

The trade agreements issue is not dead. The effort put forth to repeal the present law has not been wasted. Sentiment is increasingly against the present treaty-making policy, and eventually the American producer will again be protected to the fullest practicable extent in the home market, as is only fair and proper.

A NEW SLOGAN: 'EVERY MEMBER GET A MEMBER'

THIS SLOGAN WAS USED IN A recent letter sent out with the American National Live Stock Association's call for dues, and the response to it was most gratifying.

Several of the association members sent in as many as six new members; some sent in even more. For instance, J. C. Eaton, Minot, North Dakota, a new member himself, has sent us more than a dozen new enrollees since the first of the year. He has also sent in some subscriptions to the PRODUCER. A. B. Hall, of Glenns Ferry, Idaho, responded immediately with a list of six members. Others have sent in one, two, or three members.

Cattlemen will join the American National if they are only given a little information and encouragement. If "every member gets a member," think how much more the National could do for the industry. So we say to American National members: Take the membership blank sent you to your neighbor and get a new member for the National. Better still, spend a half day getting several new members. Your effort will pay dividends. To readers who are not members may we suggest that all stockmen are invited to join. The dues are 1 cent a head. To those who have sent in new members we extend our sincere thanks.

An effective "Every Member Get a Member" campaign insures even a better service from the National than you are getting.

WASHINGTON

WASHINGTON NOTES

THE VOTE IN THE SENATE ON extension of the Reciprocal Trade Agreements Act from its expiration date, June 12, was 42 for, and 37 against. On the Pittman amendment, which would have provided for Senate ratification of treaties, the vote was 41 for, and 44 against. Other amendments were voted down, including Senator O'Mahoney's (Wyoming), which would have required majority ratification of both branches of Congress. Below are the votes of western senators on the question of extension of the act and the Pittman amendment:

Arizona.—Ashurst, against extension, for Pittman amendment; Hayden, for extension, against amendment.

California.—Johnson, against extension, for Pittman amendment; Downey, paired against extension, for amendment.

Colorado.—Johnson and Adams, against extension, for Pittman amendment.

Idaho.—Thomas and Clark, against extension, for Pittman amendment.

Kansas.—Capper, against extension, for Pittman amendment; Reed, against extension, paired for amendment.

Montana.—Wheeler, paired against extension with Burke of Nebraska, paired for amendment; Murray, against extension, for amendment.

Nebraska.—Norris, for extension, against Pittman amendment; Burke, paired for extension with Wheeler, of Montana, paired for amendment.

Nevada.—Pittman and McCarran, against extension, for Pittman amendment.

New Mexico.—Hatch, for extension, against Pittman amendment; Chavez, paired against extension, voted for amendment.

North Dakota.—Frazier, against extension, for Pittman amendment; Nye, paired against extension, voted for Pittman amendment.

Oklahoma.—Thomas and Lee, for extension, against Pittman amendment.

Oregon.—McNary and Holman, against extension, for Pittman amendment.

South Dakota.—Bulow and Gurney, against extension, for Pittman amendment.

Texas.—Sheppard, for extension, against Pittman amendment; Connally, for extension, for amendment.

Utah.—King, against extension, for Pittman amendment; Thomas, paired for extension, voted against amendment.

Washington.—Bone, against extension, for Pittman amendment; Schwellenbach, for extension, against amendment.

Wyoming.—O'Mahoney, against extension, for Pittman amendment; Schwartz, for extension, against amendment.

PUBLIC LAND INQUIRY APPROVED

Investigation of the purchase and use of public lands, requested by the legislative committee of the American National Live Stock Association, has been approved by the Senate Committee on Public Lands. The committee approved the resolution introduced by Senator McCarran of Nevada "after modifying its terms." It would provide $10,000 for the inquiry. The modified resolution would call for a study of the "purchase, withdrawal, and allocation" of public lands by numerous federal agencies, including the Department of the Interior and Department of Agriculture. The original resolution charged that federal agencies had "abused . . . so-called emergency powers;" that federal land purchases had adversely affected state and local tax systems; and that federal officials and bureaus had been guilty of "coercive tactics."

VALUATIONS NEED ADJUSTMENT

Commenting on the public land question, President J. Elmer Brock, of the American National Live Stock Association said: "The Taylor Grazing Act, the land purchases by federal agencies, forest extensions, park enlargements, etc., have created a new situation relative to the lease value of state and institutional lands and tax valuations on privately owned grazing land. Both state leased lands and privately owned lands have been used in conjunction with the public domain. Formerly the public domain was grazed free. Now users are paying a grazing fee. In Wyoming, stockmen are paying $225,000 in fees on lands formerly used free, without the addition of a single acre of grazing. The Wyoming Land Board and the State Board of Equalization are now considering a request by stockmen for a one-third reduction on valuation of privately owned grazing lands, and one-half reduction on lease fees of state and institutional lands. Stockmen generally will recognize that these new conditions call for readjustment in rental and valuation figures."

TRANSPORTATION STUDY

The National Resources Planning Board created by the President's Reorganization Plan Number 1 last July has been assigned to undertake a comprehensive study of transportation problems. Owen D. Young, former chairman of the board of the General Electric Company, has been nominated by the President to direct the study. The National Resources Planning Board and its predecessors have been studying the natural and human resources of the country, with the objective of recommending "long-time plans and programs for the wise use and fullest development of such resources." The task of the Young group will be to study and report on how present transportation facilities serve the country and what improvements or changes may be necessary in accomplishing the general objective. A phase of such a study would be a review of the various rate structures and their effect upon the location of industry. Another phase would be the adequacy and place of the different media of transportation. The inquiry may also lead into questions of public aids and regulation.

NO RAILROAD EMERGENCY

Points made by Senator Sheppard, of Texas, in a recent radio talk on the transportation problem, are: (1) That the Wheeler-Lea bill now pending before Congress does not solve the transportation problem; (2) that competition in transportation must be maintained for the good of the shipping public; (3) that regulation of transportation adds to the transport costs of the nation; (4) that the public interest rather than the interest of any one method of transportation must be paramount; (5) that there is now no transportation emergency; consequently, if there is any need for transportation legislation, adequate time should be taken to prepare it and to study it before enactment.

HORN OF PLENTY

Under the heading, "Subsidies: the Farmers' Horn of Plenty," the *United States News* writes about agricultural appropriations. The list of subsidies and services provided for in the 1940 fiscal year is given as follows: regular activity, $115,000,000; AAA benefit payments,

$500,000,000; parity price payments, $225,000,000; FSCC, $112,000,000; losses on Commodity Credit Corporation loans, $100,000,000; export subsidies, $78,000,000; payments to sugar growers, $50,000,000; subsidizing mortgage loans on 3½ per cent interest, $40,000,000; FSA (rural relief), $26,000,000; soil erosion, $20,000,000; purchase of submarginal land, $7,000,000; crop insurance, $6,000,000. The total of all this is $1,279,000,000. But that is not all, says the *News*. Government loans available are: FSA (aid to farmers), $97,000,000; farm tenant program, $39,000,000; and feed and seed loans, $37,000,000. This makes a grand total of $1,452,000,000.

WPA WORK

The largest single contribution the WPA has made to farmers and other rural dwellers is construction and improvement of rural roads. In about five years over 400,000 miles of all-weather farm-to-market roads have been constructed. But the gigantic organization has not only woven a new fabric of farm roads but has remade the face of the country with 4,000 new schools and 1,500 additions to schools and 27,000 improved and reconditioned ones; 156 new hospitals and 66 additions and 1,436 improved health institutions; 6,400 new auditoriums, gymnasiums, field houses, and other recreational facilities, and 4,000 reconditioned ones; 10,000 other buildings and improvement on approximately 22,000 others. The total is close to 90,000 public buildings built or improved. One and three-quarters million sanitary privies in areas not reached by regular city sanitary service have been constructed. Other work included malaria control; erosion, flood control, and water conservation dams; reforestation; and irrigation facilities.

STAMP PLAN FOR COTTON

The food stamp plan for distributing surplus agricultural commodities to the needy through regular trade channels has been extended to cotton goods. Memphis, Tennessee, has become the first city in which the cotton surplus program is being tried to move surplus cotton goods, Federal Surplus Commodities Corporation officials have announced. . . . FSCC purchases of surplus commodities have been extended to include pork, invitations having been sent to packers to submit offers for sale of the product. Under the pork program, the FSCC was authorized to buy pork, lard, and salt pork, and now in addition may purchase smoked regular, skinned, and picnic hams and smoked bacon. Total of lard purchases between December 15, 1939, and April 8 was 34,740,620 pounds. During this period 3,852,000 pounds of salt pork were purchased. Cities included in the stamp plan now number more than fifty.

REORGANIZATION

The reorganization pot has been boiling at Washington again recently, but, as to the transfer or consolidation of public lands, so far it has all been conjecture. Reorganization order No. 3, which affects the Treasury, Interior, Agriculture, and Labor Departments, and the Civil Aeronautics Authority, contains no mention of the matter. For weeks past it has been frequently rumored that the Forest Service, or certain functions thereof, including the grazing service, was about to be transferred to the Interior Department. Occasionally by way of diversion the rumors ran the other way; namely, that the Taylor Grazing Administration was to be placed in Agriculture. It is still claimed that the President deems some consolidation of the public grazing lands to be in the public interest. Rumor insists that reorganization order No. 4 has been drafted calling for the transfer of the grazing division of the Forest Service to the Interior Department. There is such stern opposition in Congress and throughout the country to such transfer that it is generally believed unlikely that the matter will be pressed at present.

FARM CREDIT

Opposition to pending legislation to revamp the government's farm credit system developed in committee hearings on the Jones bill, providing among other things for a permanent 3 per cent interest rate compared with 3½ and 4 per cent at present. A spokesman for the American Farm Bureau Federation said his organization feared that the bill might result in increasing cost of farm credit to the government and this in

turn might impair the government's ability "to take steps necessary to bring about parity prices." An American Bankers' Association spokesman described pending legislation to revamp the credit system as the "most serious threat that has yet been offered" to the credit structure of the nation. The Treasury Department expressed opposition to several features of the Jones bill because the bill might place "further burdens on the treasury." The bill is endorsed by Secretary of Agriculture Wallace and the administration. . . . L. J. Taber, master of the National Grange, and John D. Miller, president of the National Council of Farmer Co-operatives, favored return of the Farm Credit Administration to the status of an independent agency. The American National Live Stock Association has urged that the Farm Credit Administration be returned to its former status of autonomy. We refer the reader to an article by Frank S. Boice, first vice-president of the American National Live Stock Association, on page 11.

CHAIN STORE MEASURE

Among those raising opposition to the Patman bill in House hearings was Secretary of Agriculture Henry A. Wallace, who said the bill would "discourage and prevent" efficient methods of marketing by driving large chains out of business. The bill would impose graduated taxes up to $1,000 a store on stores over 500, but the sponsor of the measure has suggested that this be cut to $500 and other taxes in the bill also be halved. But Safeway Stores' representatives declared the Patman "death sentence" tax could be reduced 90 per cent and still completely destroy Safeway Stores, along with other chains. Others appearing in opposition to the bill were Edward A. O'Neal, president of the Farm Bureau Federation; J. B. Wilson, McKinley, Wyoming, secretary of the Wyoming Wool Growers' Association, who told the committee that "any tax on chains must necessarily be passed on to the producer in the form of reduced prices and to the consumer in the form of increased prices."

CORN BELT CATTLE FEEDING SLIGHTLY OVER LAST YEAR

THE NUMBER OF CATTLE ON feed for market in the eleven Corn Belt states on April 1, 1940, was about 2 per cent larger than a year earlier, according to the Agricultural Marketing Service. It was the largest for that date in the past four years but smaller than for most years prior to 1934.

There was an increase of about 5 per cent in the eastern Corn Belt—the highest level for April 1 in recent years; the western Corn Belt held 1 per cent more than a year ago—still considerably smaller than for years before 1934.

A decrease is indicated in Colorado feed-lots of from 15 to 20 per cent.

The number of cattle on feed in the Corn Belt on January 1 was estimated as 12 per cent larger than a year earlier. Marketings of fed cattle during January to March were materially larger than in that period in 1939, and, because of less favorable returns from cattle feeding this season compared with last, there have been fewer cattle put on feed. Apparently feeders' expectations as of January 1 to market a larger proportion of their cattle on feed before May 1 than they did a year earlier were fully carried out.

In April of last year, Corn Belt cattle feeders reported that about 65 per cent of the cattle on feed had been on feed over three months. This year they report that 68 per cent have been fed over three months. Reports show that feeders expect to market a larger proportion of cattle during April to June this year than last year, but a proportion below average and much smaller in July and August, and a proportion above average and larger than last year after August.

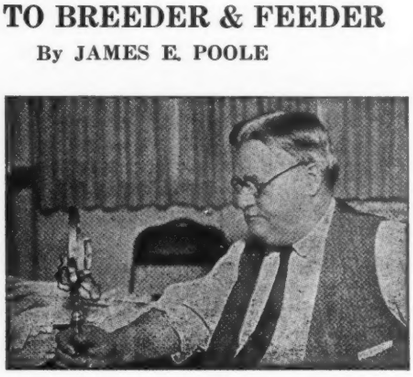
KILLING GRASSHOPPERS

A landowner in Queensland, Australia, we read in *Pastoral Review* (Melbourne), successfully destroyed large swarms of grasshoppers (at crawling stage) by dragging burning automobile tires over his property.

MARKETS

PROSPECT REASSURING TO BREEDER & FEEDER

By JAMES E. POOLE



CLARIFICATION OF LIVE-STOCK market prospects by recent developments affords a basis for speculation concerning what the immediate future has in store. During the past thirty days, the residue of the crop of steers absorbed by feeders last fall has passed into strong hands, an enormous increase in pork production has been absorbed, and the live-mutton market has gone on a scarcity basis pending marketing of the new lamb crop. Both the situation and the prospect are reassuring from both breeder and feeder viewpoints. Liquidation, responsible for semi-demoralization early in the year, has definitely run its course, the feed situation still favors producers, and threat of adverse physical conditions has been modified, although the entire country east and west of the Missouri River is still in need of generous precipitation. While gain cost favors feeders, replacement levels are definitely and apparently irremediably against them.

Presidential election periods never have generated and probably never will generate satisfactory live-stock markets. Every branch of meat trade, on the hoof and the block, is peculiarly sensitive to supply. But for the fact that morale in producing circles is high, quotations would be on lower bases. Consumers are in economical mood; killers are running on minimum inventories, except in the case of pork, where accumulation has been involuntary. Restricted cooler stocks render both beef and lamb markets highly volatile. Killers are constantly engaged in strenuous effort to reduce cost of their raw material, frequently going short of actual requirements, whereupon they replenish regardless of cost. Automobile-making centers are taking a large meat tonnage, mainly pork; in other spheres of industry, demand is curtailed. All industrial centers have taken enormous quantities of both fresh and cured pork during the past three months, establishing new per capita consumption records for the period. Innumerable "freezer" boxes scattered all over the hinterland are stuffed with sufficient product to provide a summer backlog.

That a crisis existed in fat-cattle circles early in the year will not be disputed; that it has definitely passed is an accepted fact. The all-winter wide spread between cattle and hog prices has not narrowed as expected, but the trend is in that direction. All winter confident prediction was made that either cattle prices must decline or hog quotations advance. The outcome in April was a 50-cent advance in hogs, cattle gaining 75 cents to $1 coincidentally. No other explanation is forthcoming than that beef production was reduced during March and April while pork and lard accumulations worked against a bull movement. Live-mutton trade is charting an independent course, developing phenomenal strength late in the season, which is attributable to short production.

A favorable symptom is a sharp upturn in retail cost of hog product, enabling beef and lamb to compete successfully. A stagnant dressed-beef market came to life almost overnight. Previously killers had been sparing buyers, quitting the market on the slightest pretext and frequently leaving 25 per cent of the day's receipts in the pens—on several occasions under covered sheds over the week-end. Suddenly the entire trade aspect changed. Eastern orders developed urgency, and, with the advent of April, "stale" cattle became rare, each day's receipts being cleaned up by noon, in striking contrast to dilatory buying tactics previously. It is axiomatic that killers take on cattle whenever the product clears readily; no other explanation of the change is needed.

An official estimate of the number of cattle on feed in the Corn Belt on January 1 at 12 per cent more than the previous year undoubtedly stimulated liquidation of merely warmed-up steers during the first two months of 1940. Killers analyzed the figures as indicative of heavier slaughter than the previous year. This idea was grounded by a 12 per cent January increase in the kill under federal inspection, compared with 1939, February furnishing further evidence of beef plenitude by scoring a 9 per cent increase. But March furnished disillusionment, the total kill under federal inspection for the three-month period exceeding that of 1939 by only 3 per cent. March slaughter, instead of showing an expected increase, fell 7 per cent under that of March, 1939, and was the smallest for the month since 1935.

These figures, the only reliable statistics available, necessitated curtailment of beef-supply estimates. Factually, heavy January and February slaughter represented liquidation, impelled in large measure by the January estimate of the number of cattle on feed, threat of advancing feed cost, lack of confidence in the fat-cattle market future, and liquidation of heavy steers by frightened owners. Thousands of these were dumped at prices ranging from $8.50 to $9.50 per cwt. that would have been worth $1 per cwt. more but for the mid-winter semipanic which prevented distribution. All classes, types, and grades of cattle were tumbled pell-mell into the market hopper on the slightest excuse; every scrap of information from beef-trade circles promised still lower prices; beefmakers were unable to resist the apparent logic of lower cattle or higher hog prices. Not only did they disgorge, but winter replacement dropped to low ebb, killers taking unenumerated thousands of merely warmed-up steers—the two-way type—which under the circumstances had no other road to travel.

Just why the dressed-beef market came to life between sundown and sunrise has not been convincingly explained. Possibly consumers became sated with an all-winter excessive pork diet. Coincident with a nation-wide packer campaign to stimulate pork production, the beef market picked up. How sensitive prices are to supply and demand was indicated by the influence of a decrease of 5,000 head in one week around the twelve-market circle. The only intelligent answer is that no one, not even beefhouse experts, has ever been able to account for dressed-trade eccentricity.

A significant fact was that the upturn was coincident with substantial reduction in the proportion of heavy steers, 1,300 to 1,600 pounds. The writer has frequently expressed the opinion that if never another bullock weighing in excess of 1,250 pounds graduated from a feedlot the entire industry would be substantially benefited. Heavy steers mean beef tonnage, always a potent disturbing influence. During the first two months of 1940, feeders pushed big steers into the market hopper regardless of what they realized. When heavy steers went to a premium in 1937, resultant prices created a furore in beef-making circles. In 1938 and 1939 all markets were congested with this obsolete type, a veritable debacle developing last fall when weight went to an $8.50 to $9.50 basis, with no certainty of clearance when paraded at the market. This is not intended as a chapter of ancient history but as admonition to avoid the big steer. Boston no longer calls for them; New York is koshering 1,000-pound yearlings. The big bullock is a trade anachronism. Had 20 per cent of April supply carried the same heft as last year, an appreciation would have been impossible.

Sequences of weight reduction are convincing. Fifteen-hundred-pound steers that would have been well sold at $11.50 or $11.75 in January went to $13, only three carloads of that type reporting in the entire United States. Three more would have put the entire package back to $12, if not less. A drove of Colorado-bred cattle, fed in Indiana and weighing 1,640 pounds, sold at $10.75. In January, $9.50 would have been their limit. In fact, country buyers passed them up

at that period, on the theory that the market would not take them. The history of the business demonstrates that whenever big bullocks take possession of the premium they pull others with them; contrariwise, a surplus of weight depresses the entire list, and that surplus is easily created.

The obvious moral is, hold weight down. The market can absorb an unlimited number of 900- to 1,050-pound yearlings without running into congestion. Boning heavy beef to reduce weight is expensive.

This season's cattle supply has also carried few common light steers weighing 700 to 850 pounds, the types selling in a $7.25 to $8.25 range. A logical explanation is that the South, from whence came an unlimited supply in recent years, has been cleaned up by northern feeders, who have found the animals highly profitable. Texas formerly sent a heavy tonnage of low-cost grass cattle into northern beef markets over a lengthy period; but that source has dried up. The result is a narrow spread, $8.50 to $10.50, on the bulk of winter-fed steers. Lack of excessive weight has enabled killers to move the product advantageously. Marked paucity of higher-cost cattle, the $10.75 to $12.25 types, has been a distinct advantage, as there is always a price ceiling to the beef market, facilitating retailing of medium and common grades. Long-feds are uneconomical, as consumers refuse to purchase any considerable poundage of fat beef.

A winter-long demoralized hog market is slowly emerging from chaos. The old crop of barrows has been closely marketed; the product, or its residue, is tucked away in packers' cellars. Processors did a monumental job during the winter, putting every ounce of selling force behind a phenomenal pork-selling campaign that undoubtedly militated against free merchandising of competitive meats. Hog slaughter during the first three months of 1940 was 34 per cent greater than the previous year and the heaviest three-month production since 1929. So vigorous and successful was the selling campaign of the Institute of American Meat Packers and the National Live Stock and Meat Board that the surplus was liquidated in gratifying manner. On April 1 the stock of pork was 653,000,000 pounds, or only 13 per cent over the previous five-year average.

Swine-production expansion has passed the peak. During the coming four months, breeding herds will be substantially reduced by the simple process of sending sows to the butcher. This getting-in and -out process is repeated irregularly. Farmers retain gilts in response to high hog prices; they cash sows when returns are not profitable. On this occasion packers are practically certain to clean up merchandising profits on a huge crop of $4.50 to $5.50 hogs that did not pay their board bill, although an enormous amount of money in the aggregate went back to the country to swell bank accounts.

A whirlwind finish to the winter lamb-feeding season furnishes another demonstration of the fact that scarcity always enhances values. By the latter part of March, the residue of the crop was in Colorado and Nebraska. Eastern demand was unexpectedly urgent; the daily crop sold anywhere from $10.40 to $11 per cwt., and the dressed market was cleaned up on that basis. Buyers' wool credits were maintained; show lambs were scarce at $8.75 to $9.50 per cwt., feeders declining to take off wool as packers needed it. Fat yearlings went to $9 to $9.50; ewes, to $5 to $5.50. Necessity for distress sales of meat at Atlantic seaboard markets disappeared, killers buying lambs en route to market and "to arrive" in efforts to replenish bare meat-rails. Early consignments of California springers went direct to packers, serving a useful purpose in relieving semi-famine conditions.

GRASS BEEF IN LOW SUPPLY

SUMMER FAT-CATTLE MARKET prospects are less lugubrious than appeared probable sixty days ago. With conservative marketing periodical gluts can be avoided. Morale in beef-making circles has improved; sacrificing warmed-up steers is no longer in evidence; and, while there is no disposition to run into excessive weight, tonnage will be ample. A reasonably safe prediction is that the bulk of steers will sell around current prices; that the spread on the bulk will be narrow; that so-called top cattle will be scarce; and that grass-beef marketing will be at the lightest tonnage in many years. The feed bill—meaning gain cost, now about 10 cents per pound in the dry-lot—may advance if corn goes to or above the government loan figure. However, the surplus in government and private hands is sufficiently large to prevent kiting prices, as at 57 to 60 cents millions of bushels will be cashed. An enormous quantity of corn is in cribs awaiting an opportunity to sell at the level indicated. Feeders are experiencing less difficulty in replenishing bunkers at present levels than around 50 cents per bushel. So far the government has not sold a bushel of its unprecedented holding, intimating that liquidation will not be attempted below 65 cents.

Obviously, at current cost of stock cattle, farmers would be unable to pay 60 cents per bushel. In fact, cheap corn has been their salvation all winter. The new crop will be in the ground by June 1, under more favorable propagation conditions than expected, as the all-winter near-drought has been effectively relieved. However, the subsoil over a large portion of the Belt is still as dry as in 1936—the year of the last big drought—so that frequent rain will be essential to making a crop. Corn acreage, cut 12 per cent by the AAA, will be actually reduced about 7 per cent, many farmers declining to co-operate when allotments were cut below actual farm needs. Enormous acreages of soy beans, Sargo, and various forage crops will partly atone for a possible short corn crop, and, in the event that the grain crop of 1939 repeats, cost of making beef will be simplified.

Visible supply of cattle has been reduced by light replacement since the turn of the year. Few feeders have taken on half-fat, or two-way, cattle, the bulk of shipments to the country comprising green light steers on the yearling order, supplemented by a handful of short-age calves. In figuring on beef supply during the coming six months, cognizance must be taken of the fact that the country has not reinvested on a normal scale since last fall, when stock-cattle trade went into winter quarters. A modicum of calves costing $10 to $10.75 per cwt., plus yearlings at $8.50-$9.50 per cwt., comprise the bulk of the market output. In an emergency, feeders and grass owners are taking any critter with a possible beef outcome—"whitefaces" that are not Herefords; "blacks" that cannot be dignified with the term "Angus;" also a motley assortment of red cattle Shorthorn champions would emphatically repudiate. Anxious to secure something wearing a hide and capable of masticating grass, the country is spending its money on bovine mediocrity costing anywhere from $6.50 to $8.50 per cwt.

During the first three months of 1940 the four major stock-cattle markets sent 33,303 fewer cattle to the country than during the same period of 1939. Imports from Canada and Mexico have also been substantially reduced, especially from below the Rio Grande, which furnished an unprecedented supply all through 1939. Present prospects are that stock-cattle supply will continue light, as the Southwest has run into more favorable physical conditions than were promised sixty days ago. Consequently there will be no necessity to seek pasture refuge in Kansas and Oklahoma, which happened in 1939. Every section of the recently parched western commercial cattle growing area has had rain, not in abundance, but sufficient to go along with. The Northwest reports one and one-half to three inches of rain during the first half of April, marking the heaviest precipitation over that region since June, 1939. This puts a different aspect on the carrying problem, incidentally improving morale within the industry.

Kansas and Oklahoma pastures—the Flint Hills and Osage areas—will not summer nearly so many cattle as last year, when drought in Texas necessitated a bovine hike. Pasture rentals are down in consequence; acreage per animal has increased. The pasture movement will carry a larger percentage of yearlings and decidedly fewer cows than in 1935; also fewer aged steers that will be fit for the beef-rail next fall. A month hence the numerical strength of the movement will be known. In any event, it will be reduced sharply compared with 1939, and a large percentage will pass on to Corn Belt feed-lots.

This season's grass-beef tonnage will be the smallest since the infancy of the industry. Two-year-old steers never have been so scarce. Yearlings do not fatten on grass, their logical destination being the dry-lot. The whole western country sold up closely last fall, and will repeat this season, as prices will be attractive and the great majority of commercial breeders are under the necessity of selling their annual increase the moment a stage of development has been reached where a bid is forthcoming. The Northwest, especially Wyoming and Montana, has few cattle to sell; both Dakotas are all but out of production.

Demand for qualitied calves and yearlings, western bred, is unabated. Whenever the arrival of a few loads of green cattle is announced by radio men at the markets, telephonic inquiry concerning merits and probable prices is voluminous. Many feeders are out of the market for no other reason than that picking is poor and prices out of line with quotations on beef steers. Potential demand, however, cannot be concealed, as those who failed

fall are showing impatience. Those who got in then and out meanwhile are on the preferred customers' list. On any 25- to 50-cent break in stock-cattle cost, orders will exceed available cattle. As asking prices are higher over the hinterland than at the markets, prospective buyers will stick to the stockyards.

Under present conditions beefmakers are ignoring warmed-up light steers, but the moment they get access to any considerable number of green 700- to 800-pound steers they will scurry to get down bids. An expanding pasture acreage insures broad outlets for long yearling and two-year-old steers that can be grassed until next fall, then put in the dry-lot ninety to 120 days. Any hangover, short-age calves western breeders desire to part with will get the glad hand. Feeders who about a year ago ridiculed forecasts of replacement prospects now realize what they are up against. Any idea that it is a big country and that plenty of cattle will come from somewhere has been adequately dispelled.

Light steers acquired last fall and roughed through the winter are being turned out to grass under favorable conditions. Iowa, Illinois, Ohio, and Indiana are full of these "babies," acquired and carried on the theory that the period of high replacement cost would be enduring. Some are going into the dry-lot; others will be put in beef condition with self-feeders on grass; still others will get a cheap pasture growth to go to the feed-box next fall. A certain school of supply forecasters assumed that heavy replacement last fall insured immediate increase in beef supply. Nothing could be more fallacious, as a large percentage of calves and yearlings acquired last fall is considerable distance from the beef-rail. They are still at the stocker stage of their existence.

Get in on the American National's "Every Member Get a Member" campaign.

AWAIT DEVELOPMENT IN WOOL; HIDETREND DOWN

By J. E. P.

A STRENUOUS AND PERSISTENT effort to depress wool prices is exerting a stagnating influence. No actual trading basis exists, buyers are maintaining a position on the sidelines, quotations are nominal, and both sides of the market are awaiting developments. Bids and asking prices are wide apart, which means indifference. At eastern concentration points, current business is of restricted volume. Fine delaine bright fleece wools are offered at 33 to 34 cents, in the grease, or 85 to 87 cents, scoured. Bids are 80 to 82 cents, scoured. Low quarter blood is held at 34 cents, in the grease. Small quantities of such wools have been delivered recently at the mills at 33 cents, in the grease; scattered lots at 34 cents.

Holders of territory wools show a stiff front, turning down bids not in accordance with their ideas of intrinsic value. For graded French combing length, fine territory wools, 82 to 85 cents is asked, with no takers. Occasional forced sales are reported at 75 cents, scoured basis. Texas wools are not moving freely, holders asking 80 to 85 cents, scoured basis, on spot twelve-month wools, but Boston is taking little on that basis.

Indications are for continuance of present apathy. Mill activity has declined 20 per cent from the peak last fall, and new business is not encouraging. Fabric prices are slightly above a year ago; war orders have not materialized, and the bull side of the trade has nothing to support its position. Under these circumstances, forcing wool on the market would insure lower prices; the logical policy of holders is to stand pat.

Specifications for heavy weight fabrics are lacking. Nothing can be learned regarding the volume of business in sight for next fall deliveries, although the fact is known that advance orders have been disappointing. Retailers are carrying light stocks, having had excellent clearances due to advertising and forced sales effort, but they are chary about placing orders, pending consumer activity in summer goods. Chain retailers are endeavoring to maintain prices, one method being to push less expensive fabrics. Imports of British fabrics continue in considerable volume.

Western growers, who are holding their clips tightly, fail to attract buyers. Probably definite announcement of a government policy with respect to loans would exert a stabilizing influence.

Imports of apparel wool are running considerably heavier than a seasonal average, due to the fact that 1939 domestic consumption exceeded production by 100,000,000 pounds; but a diminishing volume impends, current arrivals being mainly small shipments from Australia. Declining "sterling" is calculated to exert pressure, but the trade does not to secure cattle for summer feeding last

anticipate serious direct price competition from foreign wools despite the fact that world production last year broke all previous records.

Domestic supply and demand influences will determine values of the 1940 clip, as domestic wools are moderately below an import parity. The carryover was the smallest in several years, and the new clip is expected to be about the same as last season.

HIDES SKIDDING

DIMINISHING SLAUGHTER HAS not improved the hide market, technically or otherwise. A lower trend is detected, especially on the New York futures market; packers control the spot market and are in resistant mood. Packer steer hides are selling at 12 to 13¼ cents; cow hides, 12½ to 12¾ cents. Country hides are nominal at 9 to 10½ cents, country packer hides selling at 11¼ to 11¾ cents.

Shoe plants are not so active as a year ago, as new orders are below expectation. Since the first of the year, hide quotations have declined irregularly, although they are still about 25 per cent above the corresponding period of 1939. Retail sales are running slightly above the same period of last year. Shoemakers contend that they are under the necessity of operating on an uneconomical basis because of rising material and labor cost. Attempts to make up retail prices elicit remonstrance from dealers. The outlook has been clarified to some extent by announcement of a minimum wage rate of 35 cents per hour with no differentials.

Shoe output during the first quarter of 1940 was about 7 per cent below the corresponding period of 1939 but 12 per cent above the seasonal average of the previous decade. New leather business is quiet, with side leather selling about half way between the high levels of last August-October. Sole leather prices are soft.

Current shoemakers' inventories are not excessive, despite failure by production to meet expectation. Stocks of sole leather are adequate; upper leather has accumulated in consequence of style uncertainty.

Current hide prices are shifting, owing to an eccentric futures market, and are somewhat below the February level. They are 25 per cent under the September peak, although still above a year ago.

Imports of South American hides have declined, Europe and Japan taking the bulk of purchases at Buenos Aires. An opinion exists that the recent downward price trend will furnish a basis for an upturn.

CALFHOOD VACCINATION TEST 'WORKING VERY WELL'

GOVERNMENT RECORDS SHOW that out of almost 3,000 calves vaccinated for abortion and reaching the end of their first pregnancy, only about 2 per cent became infected with the abortion bacillus.

This is brought out in the testimony of Dr. J. R. Mohler, chief of the Bureau of Animal Industry, in congressional hearings on the agricultural department appropriation bill. His testimony is given below:

"MR. CANNON: I believe you testified at one time before this committee that vaccine was ineffective after the disease was contracted.

"DR. MOHLER: That is right.

"MR. CANNON: That it was only efficacious before the disease was contracted. Do you still adhere to that conclusion?

"DR. MOHLER: We do. We try to vaccinate the calves between the ages of four and eight months, as I have stated several times previously, before they reach the age of puberty.

"MR. CANNON: After the animal once has Bang's disease it is a hopeless case so far as vaccination is concerned?

"DR. MOHLER: So far as we know at this time that is true. We do not have the last word on that question however. We are working on it, and so far as we

know at this time that is true. We believe it is more efficacious to induce immunization in calfhood.

"We now have a record of 13,240 vaccinated calves in 260 herds located in twenty-four states, and in some of these cases the calves were vaccinated three years ago, some of them two years ago, and others one year ago. We have records of 2,943 of these animals which have ended their first period of pregnancy. Of course it takes almost a year to produce a calf, but of these heifers 2,826 produced normal calves and only 117 aborted. That is only 4 per cent of the entire number that we have records on that aborted. However, not all these abortions were due to the abortion germ; some of them were infected with other germs, and some of them lost their calves through injury such as bumping against the barnyard door or fence. The record of the 2,943 calves shows that only about 2 per cent were infected with the abortion bacillus.

"MR. CANNON: My experience is that the animal having the disease might recover but continue to be a carrier.

"DR. MOHLER: That is true as a general rule, but there is no 100 per cent perfection or accuracy in medicine, as you know. For instance, quinine will cure malaria in most instances but may fail to do it with a few people. As a rule, it is satisfactory, but there are exceptions. Out of about 5,500 cattle that reacted typically, we found around 6 or 7 per cent which lost their reaction."

Dr. Mohler asked for a $95,000 increase in appropriations for more intensive work in developing a vaccine which is "working very well." Dr. Mohler said that beef cattlemen opposed "not the eradication of the disease but they are opposed to the killing of their cattle and prefer vaccination." He said he was anxious to get more money to speed up the vaccine experiments.

AREA PLANTED TO CORN SMALLEST IN MANY YEARS

UNITED STATES CORN ACREAGE in 1940 gives promise of being the smallest in many years. Plantings will total 87,770,000 acres, according to a report on prospective plantings issued by the Department of Agriculture. This compares with 91,501,000 acres planted in 1939. The 1929-1938 average was 101,758,000 acres. The largest acreage on record is 112,060,000 in 1932.

Estimated yield of the 1940 acreage is 2,501,000,000 bushels — about 110,000,000 bushels less than the 1939 harvest. However, carryover of 650,000,00 bushels offsets the reduction.

The report indicates an increase in spring wheat acreage of 10.8 per cent over last year's area, the prospect being for 19,425,000 acres, against 17,532,000 acres seeded last year and the ten-year average of 22,344,000 acres. Indications are for an oats area of 35,818,000 acres, against 35,512,000 acres last year and a ten-year average of 39,501,000 acres. Barley planting was placed at 14,606,000 acres—a fraction over last year.

LIVE STOCK AT STOCK YARDS

	March		First Three Months	
RECEIPTS—	1940	1939	1940	1939
Cattle	917,866	1,040,651	2,893,083	3,066,163
Calves	441,466	500,887	1,278,138	1,408,785
Hogs	2,710,474	2,205,073	9,404,424	6,874,502
Sheep	1,440,234	1,765,571	4,593,042	5,058,457
TOTAL SHIPMENTS†—				
Cattle*	344,843	405,436	1,024,954	1,181,525
Calves	171,232	173,352	471,762	506,766
Hogs	749,366	546,631	2,598,065	1,867,065
Sheep	619,946	720,169	1,832,610	1,991,595
STOCKER AND FEEDER SHIPMENTS—				
Cattle*	163,949	195,309	445,267	561,671
Calves	50,580	57,454	132,524	163,439
Hogs	49,412	45,099	139,531	124,035
Sheep	88,610	110,417	291,846	304,307
SLAUGHTERED UNDER FEDERAL INSPECTION—				
Cattle*	721,163	773,801	2,263,629	2,187,828
Calves	439,979	478,416	1,234,295	1,278,033
Hogs	3,981,165	3,229,120	13,614,170	10,162,700
Sheep	1,265,590	2,473,069	4,176,324	5,289,744

*Exclusive of calves. †Includes stockers and feeders.

HOLDINGS OF FROZEN AND CURED MEATS

	Apr. 1, 1940†	Mar. 1, 1940	Apr. 1, 1939	Five-Yr. Av.
Frozen Beef	58,736,000	60,481,000	26,844,000	62,650,000
Cured Beef*	13,842,000	14,227,000	14,126,000	19,795,000
Lamb and Mutton	4,257,000	4,488,000	2,412,000	3,608,000
Frozen Pork	324,072,000	298,638,000	213,792,000	206,838,000
Dry Salt Pork*	86,802,000	85,760,000	76,304,000	82,287,000
Pickled Pork*	242,678,000	266,255,000	233,108,000	290,960,000
Miscellaneous	101,050,000	106,654,000	62,510,000	78,875,000
Total Meats	831,437,000	836,503,000	629,096,000	745,013,000
Lard	269,284,000	256,640,000	129,252,000	129,909,000
Frozen Poultry	115,447,000	144,759,000	90,987,000	88,669,000
Creamery Butter	8,856,000	18,366,000	78,909,000	22,249,000
Eggs (case equivalent)	2,110,000	1,169,000	2,833,000	2,915,000

* Cured or in process of cure. † Subject to revision.

CHICAGO LIVE STOCK PRICES

	Apr. 15, 1940	Mar. 15, 1940	Apr. 14, 1939
Slaughter Steers—Ch. (1,100-1,500 lbs.)	$11.25-1250	$11.00-12.75	$11.75-13.25
Slaughter Steers—Good	9.50-11.25	9.00-11.25	10.00-12.00
Slaughter Steers—Ch. (900-1,100 lbs.)	11.25-12.50	11.50-12.75	11.75-13.00
Slaughter Steers—Good	9.50-11.25	9.00-11.50	9.75-11.75
Slaughter Steers—Med. (750-1,300 lbs.)	8.00- 9.50	7.50- 9.00	8.75-10.00
Fed Young Steers—Gd.-Ch. (750-900 lbs.)	11.25-12.5	11.50-12.75	9.25-12.75*
Heifers—Good-Choice	9.25-11.25	9.00-11.00	9.25-11.50
Cows—Good	7.00- 7.75	7.00- 7.75	7.25- 8.00
Vealers—Good-Choice	9.50-11.00	10.00-12.00	8.50-10.75
Calves—Good-Choice	8.00- 9.00	7.50- 8.50	6.50- 8.50
Feeder and Stocker Steers—Good-Choice	8.25-10.25	8.25-10.25	8.50-10.25
Feeder and Stocker Steers—Com.-Med.	6.75- 8.25	7.00- 8.50	7.50- 8.75
Hogs—Med. Weights (200-240 lbs.)	5.35- 5.60	5.10- 5.45	6.95- 7.25†
Lambs—Good-Choice	10.75-11.00	9.85-10.15	10.00-10.45
Ewes—Good-Choice	4.25- 5.50	5.00- 6.00	5.50- 6.35

* 550-900 lbs. † 200-250 lbs.

CHICAGO WHOLESALE DRESSED MEAT PRICES

	Apr. 15, 1940	Mar. 15, 1940	Apr. 14, 1939
FRESH BEEF AND VEAL—			
Steer—Choice (700 lbs. up.)	$15.50-17.00	$15.00-16.50	$17.00-18.50
Steer—Good	13.50-15.50	13.00-15.00	15.00-17.00
Steer—Choice (500-700 lbs.)	15.50-17.00	15.00-17.50	16.50-18.50
Steer—Good	13.50-16.00	13.00-16.00	14.50-17.00
Yearling Steer—Choice	16.00-17.00	16.00-17.50	16.50-18.00
Yearling Steer—Good	14.00-16.00	14.00-16.00	14.50-16.50
Cow—Commercial*	12.00-13.00	11.00-12.00	12.50-13.00
Veal—Choice	15.00-16.00	15.50-17.00	14.50-16.00
Veal—Good	13.00-15.00	14.00-15.50	13.00-14.50
FRESH LAMB AND MUTTON—			
Lamb—Choice (55 lbs. down)	18.50-21.00	16.00-19.00	16.00-19.00
Lamb—Good	17.50-20.00	15.00-18.00	15.00-18.00
Ewe—Good	9.00-10.00	8.00- 9.00	10.00-11.00
FRESH PORK CUTS—			
Loins—8-12 lb. average	15.50-16.50	12.50-13.50	16.50-18.00

*Previous classification "Good."

FOREIGN

LIVE STOCK INTERESTS IN AUSTRALIA

By A. C. MILLS

THE 1940 BEEF EXPORT SEASON is getting into its stride. The south and central Queensland packing plants now are treating moderate tallies of cattle, but it will probably be April 15 before any are really busy. Killings in the north do not start until toward the end of April.

The main cattle breeding and fattening areas have recently had very heavy rains that caused widespread floods—a temporary disability which should be more than compensated for by the growth of pastures that will follow. It is believed that, unless abnormal weather conditions set in, natural feed will be sufficient to carry all available stock well into the winter and probably to the spring, when thunder storms may be expected.

Packers remain reticent as to the prices they propose to pay for cattle when the season gets going properly. Today those operating in south Queensland are offering $7.90 to $8.15 per 100 pounds, chilled weights, for first-grade steers and $7.20 for seconds, while in the central division the current rate is $7.45 and $6.50 per 100 pounds, respectively. These rates, however, only apply to March deliveries and certainly are higher than those which will be paid when greater supplies are available. Last year's opening buying price in south Queensland was based on $7.70 per 100 pounds for first steers and $7.10 for firsts in the central division. By June it was down to $7 in the south and $6.50 in the central district.

Fixed Price

Under the British government's meat purchase scheme, packers this year are assured of a definite price for export beef up to the end of September, when the rate will be reviewed but is not likely to be reduced. That being the case, it would be thought that there should be no difficulty in determining the buying price for some months ahead. It is said that the foregoing offers for March delivery are above the contract parity and that they are being made to attract supplies before the rush of the season. Probably there is a good deal in this, especially as the contract makes no price differentiation between light and heavy carcasses. In other words, the British government has agreed to pay the same rate per pound (quality being equal) for heavy bodies weighing, say, 850 pounds as for those weighing 600 pounds or less. Fatteners know this, and naturally they will be tempted to hold their cattle to increase weights while they have the feed. Packers, on the other hand, fear that, if that is carried out to any extent and there should happen to be even a short delay in providing shipping freight for frozen beef, serious congestion will occur at the peak of the killing season. Hence the special offer for early deliveries.

Sufficient Freight Space

So far, although there was a record kill of lambs for the export trade, there has been no scarcity of freight space for the shipment of refrigerated produce. That this happy state of affairs will continue, however, is not taken for granted, as evidenced by government's willingness to consider seriously propositions designed to economize freight. Since early November all lamb carcasses shipped to Great Britain have been "telescoped," with a resultant saving in storage space of about 30 per cent. Telescoping, it may be explained, is accomplished by cutting the carcass across just below the chump bones of the legs and forcing the hind portion inside the fore "trunk."

During the past few weeks the British and Australian governments have had under consideration a proposal which, if workable on a large scale, may go some way toward preventing congestion at beef packing plants through temporary hold-ups of shipping services. It arises from a suggestion recently put forward by M. T. Zarotschenzeff, technical director, National Frosted Foods, Inc., that beef imported into Britain and for feeding allied troops be "quick frozen" at point of origin.

The British government is said to be definitely interested and has asked the Australian government and Council for Scientific and Industrial Research to investigate its possibilities from the Australian angle. The adoption of the plan would involve the boning and cutting of the bodies of beef into relatively small joints (a maximum piece weight of about thirty pounds is contemplated) at packing plants or abattoirs. Mr. Zarotschenzeff suggests a division of the carcass into three grades: viz., (1) best cuts, (2) secondary cuts, (3) trimmings, excess fat, bones, etc. He estimates that at least 40 per cent would fall in the third category and be retained at the meat works, and that elimination of inedible parts, bones, etc., would enable fully two and a half times more meat to be shipped or stored in space now available. He further claims that distribution would be greatly simplified by packing the meat in small parcels and that the final handling, which usually calls for a trained butcher, could be done by unskilled labor.

Few Accommodations

The general adoption of the plan by Australia will not be easy. Few, if any, packing-houses or abattoirs have accommodation for large-scale boning of beef bodies or for conditioning the cuts prior to quick freezing. Also only one or two have installed the special plant that is necessary for the process. No doubt the difficulties can be overcome, if the necessity arises, but it would take time.

In furtherance of a policy to prevent undue rises in commodity prices, the federal government has assumed control of all marketable cattle hides and yearlings and calf skins grown in Australia. That, being a war-time measure, hardly calls for comment. Wool, wheat, apples, pears, and many other products, also are controlled, but with none other is the method of disposal quite so original.

As in the days of freedom of trade, the producer is still allowed to send his hides to any selling broker he fancies, but the latter, on receipt of the consignment, is obliged to submit them to valuers appointed by the Hide and Leather Industries Board, which has been set up to administer the regulations governing the control. These regulations provide that on appraisement the value shall be credited to the producer and the hides next submitted for sale by

auction to the Australian trade only. Further, they provide that Australian users must bid the appraised price, neither more nor less. Any hides not purchased by Australian tanners, etc., at the first sale can afterward be auctioned to exporters, with the appraised price as the minimum and without a maximum. In no case may hides be sold under the original rate fixed by the valuers, but, if export competition forces the price above that level, the difference is paid into a special account opened by the Hide and Leather Industries Board. The board has promised that such surplus, if any, shall be used for the benefit of producers, probably to finance a special line of research or to control stock diseases.

VALUE OF GRAZING LAND

(Continued from page 4)

acres, the rancher could have $44.64 in land, permitting a value of 62 cents per acre. The interest and taxes would be $0.0388 per acre, and the feed costs, $2.79 per animal unit for the year, or $0.2325 per month.

All land values and costs are based on privately owned and controlled lands where the operator has control of his ranch management practices. The values will, I believe, permit private ownership and efficient use of the range and give a fairly equitable distribution of operating interest, and tax costs.

GRAZING CATTLE ON THE ARGENTINE PAMPAS

By GENE HAYWARD, Jr.

ON AND ON THE TRAIN ROLLED, mile after mile. Minutes swelled into hours. Then hour after hour saw no change in the landscape, no hills, no streams, no rolling prairies, no distant natural landmarks, only the flat green grassland of the pampas under a warm spring sun, broken by occasional cultivated fields, some near and some fading into the horizon, marking the home of some "camp" man or estanciero.

That was my first impression of the Argentine cow country the day I went west by rail from Buenos Aires. But it was after I had been on a large estancia, had worked with the cattle, and had asked a few questions that I began to understand their live-stock system here with regard to range and to realize why the carrying capacity of their land was so much greater than that I had been accustomed to in some of the range states in the United States.

The pasturing of live stock varies somewhat with the season and the crops grown, advantage being taken of what is available in the most profitable way. Because a good deal of the land is cultivated, grass is only one of the important forages. Alfalfa is a heavy producing crop found everywhere. Then grain crops are very often used for grazing. Sometimes they are planted to be used as forage and sometimes unforeseen weather conditions have forced it upon them as a last resort. Second to drought, the growth of weeds probably causes the most serious pasture difficulty, while wet seasons cause the formation of a large number of shallow lakes. But all in all the pampas excel as a live-stock grazing country.

Situated in the best general agricultural area in Argentina where the soil is rich and the rainfall is from thirty to forty inches annually, native grasses grow and produce an abundant amount of feed. Most of the grasses have a stem growth of from twelve to thirty inches in height, and as long as the season is good continue to produce seed. Two of the most common grasses go by the names of Australian rye grass and wild oat grass. The first, a drought-resistant perennial, is the most common and covers the larger part of virgin pastures. It produces heavy seed and foliage and stands about eighteen inches high. The second is fairly well described by its name and is twenty-four to thirty inches tall. It is an annual with a very short growing period, having the remarkable facility of reseeding itself three or four times a year. It is found most abundant on land that has once been plowed and then turned back to pasture in alfalfa and grasses. Among the many other grasses found here is Bermuda, which is usually undesirable because it spreads easily and crowds out more productive kinds.

Because alfalfa grows so well in these soils, it may take one-fourth to one-third of the pasture area. As a second-year crop, when it is usually at its best, it may be used for fattening young stock for market. If not used for fattening, it makes excellent pasture for carrying cows with calves at a rate as low as one acre per cow. Almost no difficulty is experienced from bloat, although care is taken not to put thirsty thin cows on a heavy alfalfa field. If there is any danger, it comes only the first day. After that the subject is given no thought. When used for grazing purposes, the alfalfa does not always look like a first-class stand ready for hay. It may become thin and full of weeds and grasses, for it often receives little or no attention after the first season. Nevertheless, as long as the alfalfa continues to grow, it is very good pasture.

Though it is usually very productive, this section of the country has been subject to droughts in the past—one thing which probably has encouraged the present practice of grazing cattle on mature grains such as wheat, oats, barley, and rye. Not long ago I saw a pasture of over 600 acres of rye ripening for harvest. When it was ready to cut, it was so thin that only the better half was combined. Then the gates were opened and cows and calves driven in to clean up the remainder of the crop. Fed in such a way, it did not seem a very efficient feed, for much of the whole grain passed through the animals and was left on the ground in the manure. That this is frequently done in some sections is verified in a report of Paul O. Nyhus, United States agricultural attaché to Argentina, which states that in regard to wheat "the average abandoned acreage in the region of lowest yield is from 15 to 20 per cent."

On the other hand, fall-planted grains may be planned as the most important sources of winter pasture. Cattle are put on the green young crop and carried until the coming of the spring season, when they are removed in order that the grain may mature for harvesting. Oats and barley are used a good deal in this way and to a lesser extent wheat and rye.

One serious difficulty frequently found in pasture that has been cultivated and then reseeded to grass is the growth of several kinds of tall prickly weeds. These

Author's horse in weedy pasture.

An unharvested rye pasture.

Virgin grass pasture (Australian rye).

weeds that stand from five to eight feet high usually grow rapidly, produce seeds, and die in a period of about two months. Then they reseed and as the old crop of dead stalks is falling to the ground a new crop is springing up. Where they have become thick and tall neither cow nor horse will walk through them. In several pastures I have ridden through quite a number of acres of grassland which was unavailable to live stock because of the threatening thorns. Some estancieros have at considerable expense managed to keep them under control, and many of the small property owners have been able to destroy them. But, with winds blowing the feathery seed across the country, it is a continuous task. One system used on large estancias to lessen their damage rather than control them is to push them down and cut them up by the use of large push rollers of horizontal knizes. Since the stems of the weeds are very large and have a celery-like brittleness, they snap easily, and once broken or cut they lie flat on the ground, where they soon rot. However, rolling the weeds down on several thousand acres every two months is a job not always accomplished.

The flatness of the pampas also gives rise to a large number of shallow lakes during the rainy season, all low spots filling with water for which there is no ultimate drainage. In the summer time, when many of these so-called lagoons dry, a kind of water grass that cattle like may be produced, though as a rule cultivated crops will not grow in their soil.

In the most productive area, pastures vary in size from 200 to 800 acres. The smaller ones offer some advantage, because grazing can be more carefully regulated. Cattle are handled a good deal, and it is no trouble to change pastures with a herd each week if necessary or advisable. During the hot weather, cattle in the larger pastures are inclined to stay near the water and graze heavily that area immediately surrounding the windmill while the grass remains knee-deep in the far corners.

The carrying capacity of the land varies with the season and with the average annual rainfall. While the Province of Buenos Aires receives an abundance of moisture from ocean breezes, the far western areas bordering the Andes are very dry and correspond to the western range areas in the States. In the best section of the country the amount of grazing land necessary for the year-round maintenance of a cow is from two to two and one-half acres.

Generally speaking, the Argentine pampas are a more productive cattle country than that found in the States because land of similar capabilities would be far too valuable to be left in virgin grass and alfalfa pasture in the United States.

FROM FOREIGN FIELDS

ORIENTAL AND EUROPEAN wars creat a condition under which soy beans from United States gain in the European market at the expense of the Manchurian crop. From October, 1939, through January, 1940, the United States sold more than 10,000,000 bushels of soy beans and more than 7,000,000 pounds of soybean oil in Europe—about four times as much as in the corresponding months a year earlier. High freights and a shortage of shipping give an advantage to the shorter haul from this country, which is now the main source of European imports, according to the office of Foreign Agricultural Relations. The Netherlands is the principal buyer of United States soy beans, and took more than half the exports.

FOOT-AND-MOUTH RESEARCH

A national foot-and-mouth disease Research Institute has been erected in Buenos Aires, Argentina. "It is the first step in a plan to make full inquiry into the difficulties characterictic of the disease," says *La Res* expressing hope that the institute would immediately carry out work with serums, because "the use of these serums of convalescent animals is today, according to the unanimous opinion of foreign researchers, regarded as a certain and cheap preventive method."

DENMARK'S FOREIGN TRADE

The recent change in the political status of Denmark has focused attention on Danish foreign trade in agricultural products. Almost three-fourths of Denmark's exports in 1939 were farm products (cured pork, butter, and eggs) says "Foreign Crops and Markets," a Department of Agriculture weekly. In recent years Denmark has been supplying about two-thirds of the imports of cured pork from foreign sources into the United Kingdom, or about one-third of the total British consumption. They supply 25 per cent of the butter imported by the United Kingdom, and between one-third and one-half of the eggs. Except for cured pork, says the weekly, the products do not compete directly with United States exports to the market of the United Kingdom. Other cured pork suppliers are Canada and Ireland. "It is impossible to say whether a change in the competitive position of Denmark will substantially affect the amount of cured pork purchased by the British from the United States."

NOSEPRINTING

Identification of sheep by means of noseprints, in a manner similar to identification of human beings by fingerprints, is being investigated by the South African Division of Veterinary Service. No two prints are similar, and sheep retain the print for consecutive years.

ROUND THE RANGE

WESTERN RANGE AND LIVE STOCK REPORT

WESTERN RANGES ARE SHOWing a fair to very good stand of feed, according to the April 1 live stock and range report of the Denver regional live-stock office of the Agricultural Marketing Service. Ranges opened early. Prospects for new feed west of the Rockies were good; in the Great Plains, fair. Old range feed was short in many areas. Live stock wintered well and losses were light.

A United Press item, speaking about records kept by the Weather Bureau, says that the country's "growing season"—the time between the last spring frost and the first fall frost—has increased by from two to three weeks during the past eighty years and that it has migrated northward 225 miles. The Corn Belt, the Cotton Belt, and the Spring Wheat Belt all have been pushed northward. "It has been possible, for example, to grow cotton 225 miles farther north during the past twenty years than it was in the twenty years between 1860 and 1880."

The Agricultural Marketing Service gives range and pasture condition in the West in detail as summarized below:

Arizona.—Spring feed prospects fairly good; in northeast, where feed was poor, prospects improved; cattle wintered well in that section and generally.

California.—Further substantial pasture and range improvement; soil moisture above normal; seasonal spring rains will assure spring and summer feed; grass-fat beef will move early; large percentage early lambs may attain slaughter finish.

Colorado.—Spring range prospects improved; old range feed short; subsoil moisture below normal in east; hay and feed mostly ample; lamb and calf crop prospects good.

Idaho.—Good early grazing in prospect; only small local areas short on subsoil; good calf crop in prospect; good crop lambs, losses light; little wool contracted.

Kansas (western).—Pastures improved slightly; soil moisture improved during winter but subsoil moisture short; lamb and calf prospects good.

Montana.—Sufficient old feed until new develops; topsoil moisture ample except in local northeast areas; spring feed prospects good; hay and feed have been ample.

Nebraska (western).—Fair to good prospects for new feed; old range and pasture poor to good; topsoil moisture good but subsoil short; feed generally ample; few cattle thin; calf crop prospects good.

Nevada.—Good start on new range feed, old feed in good supply; early range conserved hay and fairly large carryover; soil moisture good but mountain snowfall deficient.

New Mexico.—New grass east and south; old range feed good except in northwest; rain needed to continue growth; feed ample with light supplements.

North Dakota.—Prospects for new grass improved but more moisture needed; feed generally ample; winter was mild without severe storms.

Oklahoma.—Old feed short, new feed starting slowly; grain pastures poor and feed about exhausted; stock water low; topsoil ample for new grass but moisture short; cattle thin but strong.

Oregon.—Range feed prospects favorable; new grass made good start; calf and lamb crop prospects good; season somewhat earlier than year ago; large hay carryover.

South Dakota (western).—Old range feed fair to good except where dry in 1939; new grass starting in early areas; surface moisture ample but subsoil deficient; feed ample except parts of southwest; lamb and calf prospects good.

Texas.—Ranges about average at beginning of April; stock made good gains in March; good cattle demand but limited tendency to sell; spring movement to pastures and feed-lots will be smaller than last year; good calf and lamb crops.

Utah.—Growth new feed favorable; old feed fair to good, short where dry in 1939; soil moisture generally good, some shortage mountain snowfall.

Washington.—Ranges improved; excellent growth spring feed but old feed short; soil moisture best in several years, mountain snowfall below normal; large carryover hay and feed.

Wyoming.—Old range feed short; fair to good soil moisture but more needed in 1939 dry areas; feed fed close generally.

BULLETINS IN BRIEF

SECRETARY OF THE INTERIOR Harold L. Ickes recently announced that regulated grazing would be permitted in the West on about 10,000,000 acres of public land held for possible use in future reclamation developments. This was made possible, he said, under a co-operative land use agreement between the grazing service and the Bureau of Reclamation. Affected by the agreement are approximately one-half of the reclamation withdrawals of the past thirty years in fourteen states which were 5,086,822 acres in Arizona; 5,186,802 acres in California; 1,319,794 acres in Colorado; 1,437,360 acres in Idaho; 817,740 acres in Montana; 308,867 acres in Nebraska; 2,332,610 acres in Nevada; 243,400 acres in New Mexico; 36,220 acres in North Dakota; 991,470 acres in Oregon; 190,420 acres in South Dakota; 357,280 acres in Utah; 1,732,678 acres in Washington; and 1,788,579 acres in Wyoming.

FARM FORECLOSURES

Out of some 12,508 foreclosures completed by the federal land banks and the Land Bank Commissioner during the twelve months ended December 31, 1939, 30 per cent lost their farms because the borrowers were unable to carry the debt burden under ordinary conditions, according to a survey recently made. A further analysis of the reasons for foreclosure during the year disclosed that throughout the country at large the land banks ascribed 53 per cent to "borrower not doing his honest best," 4 per cent to "borrower not taking proper care of security," and 11 per cent to "borrower not making proper application of farm income." It is obvious, says Governor A. G. Black of the Farm Credit Administration, that overappraisals have been rather frequent when one out of every three farms is foreclosed because the borrower was unable to carry the debt burden "under normal conditions."

NEW JOBS

New field representative for the National Highway Users' Conference (an association to promote the interests of shippers by truck and highway users generally) is W. E. Jameson, of La Veta, Colorado. He has been a resident of the western states all his life and has first-hand knowledge of conditions in the region which he is to serve. He was active in Colorado in organizing farmers and others in World War work, and in the early twenties was the representative of agriculture in the Congressional Joint Commissin of Agricultural Inquiry. The Senate recently received the name of Marvin T. Jones, Texas, chairman of the House Agricultural Committee, for appointment as judge in the United States Court of Claims—a lifetime job at $12,000 a year. John B. Cage, past president of the American Shorthorn Breeders' Association and owner of a herd of milking Shorthorns at Eudora, Kansas, was recently elected mayor of Kansas City, Missouri.

MEAT PROMOTION

Meat—the ultimate product of the live-stock industry—is being featured in an intensive six-weeks' program in California, Oregon, Washington, Idaho, and Utah. Opening at San Diego, California, on April 8, the program is to be staged in twenty-two cities, the final session being at Salt Lake City, Utah, May 17. During this period, representatives of the National Live Stock and Meat Board will reach thousands of persons with facts concerning modern methods of meat merchandising, meat cookery, meat carving, and the food value of meat. In charge of the meat merchandising demonstrations is Howard H. White, specialist of the board. Mr. White, whose work takes him from coast to coast, will give lecture-demonstrations before retail meat dealers, service clubs, teachers, students, housewives, and others.

FAMILY INCOME

Two-thirds of all American families lived on an average of $69 a month in 1935 and 1936, according to a government survey. There were 4,000,000 families who had an average income of only $312 per year. Eight million families, comprising about 25,000,000 or 30,000,000

persons, had an average of $758 per year. Another 7,000,000—23 per cent of the total—lived on incomes averaging $100 per month. Average income for the nation as a whole was $1,622 for each family. The highest 5 per cent in the income bracket had 27 per cent of the national income, and the highest 1 per cent had 14 per cent of the income. Agricultural Department economists said families receiving $312 spent an average of $1 per person per week for food; those with an income of $1,200 spent an average of $2.18 per person per week. "If every family receiving less than $100 per month could be raised to that level, expenditures for food would increase by $1,900,000,000 a year and the national food bill would be 14 per cent larger," Milo Perkins, president of the Federal Surplus Commodities Corporation, said.

DENVER YARD CHARGES HIGHER

The Denver Union Stock Yard Company has been authorized by the Department of Agriculture to increase handling charges on live stock. The increased rates include advances from 30 to 33 cents a head for cattle received by rail, 20 to 23 cents for rail calves, 35 to 38 cents for cattle by truck or driven in, 25 to 28 cents for calves on foot, 7½ to 8 cents for sheep and goats by rail, and 9½ to 10 cents for sheep and goats on foot. L. M. Pexton, general manager of the yards, said that the higher rates have been approved "to offset higher labor costs and higher taxes."

MOSQUITO LIKES CATTLE BEST

The mosquito, when she has free choice—only the female bites—prefers horses and cattle to human beings by six to one, say entomologists of the Department of Agriculture. But they admit also that persons who insist they are the favorite food of all the mosquitoes at a picnic probably are right, because some individuals do attract mosquitoes more than others. However, pigs are about three times as popular as humans. Dogs are slightly preferred. Man rates just ahead of chickens and cats as a preferred source of blood meat which most of the biting mosquitoes require before they can begin depositing eggs. First step in protection is careful screening of the house to keep the insects outside. More effective and desirable—and the only effective protection for domestic animals—is to remove or treat stagnant water which is favorable for mosquito breeding.

NEW YORK'S FOOD SUPPLY

If the sources of New York City's food supply were suddenly to fail, this is the trouble the city would be in, as of 1921, according to *Consumers' Guide*: Fresh meats for steaks and stews and roasts would last six to eight days; fresh milk, overnight; butter, however, thirty days; evaporated milk, four to six weeks; grain for bread and cereals, thirty days; potatoes, bananas, citrus fruits, apples, pears, and similar commodities, some time; but most fresh fruits and vegetables, overnight like milk; eggs, three months; dressed poultry, thirty to sixty days; fish, except salmon, twenty-four hours; sugar, two to three weeks; coffee, tea, and spices, indefinitely; canned fruits and vegetables (at end of canning season), full year; dried peas and beans, most of a year; vegetable oils and compounds, thirty to sixty days.

15,725 FOREST FIRES

During 1939 forest fires on national forest lands cost the lives of sixteen fire fighters and burned over 357,286 acres out of 206,000,000 acres under Forest Service protection, according to a preliminary forest fire report of the Forest Service. Forest officers fought 15,725 separate fires during the year. Losses were held, however, to less than 0.2 per cent, or one acre for every 575 acres guarded. Estimated money damage to commercial timber and improvements was $1,431,845. Forest Service officials said that the much greater losses in watershed protection and potential timber production cannot be estimated in money terms.

PAINTER RANCHES MERGE

A merger has been completed whereby the Hereford ranches of John E. Painter & Sons and the William Painter Hereford Company will now operate under the name of Painter Hereford Company. James L. C. Painter, who has been in charge of the John E. Painter & Sons ranch since the death of his father, the late John E. Painter, will assume the presidency of the new organization. William Painter has been named vice-president, and his son Stafford C. Painter, secretary-treasurer and manager.

MEAT CONSUMPTION

Estimated consumption of federally inspected meats per capita in the United States during 1939 is given by the Agricultural Marketing Service as:

	Pounds
Beef and veal	41.31
Lamb and mutton	5.28
Pork (including lard)	52.09
Lard	7.52

J. D. CANARY PASSES

Death recently claimed J. D. Canary, seventy-one, registered Hereford breeder, cattleman and oil man, at his home in Denver, Colorado. He had not been active for some years. He made his fortune in oil in Oklahoma and Texas. His Wildacre Ranch, twelve miles south of Denver, was once the home of one of America's best-known registered Hereford herds. He sold his ranch in 1932 to Charles K. Phillips, the present owner. Mr. Canary suffered a broken back about a year ago and never fully recovered from the injury.

REFORESTATION

Last year the Forest Service carried forward the national reforestation program by planting 125,951,000 trees. During the year, the Service planted 131,707

acres of burned-over and cut-over land in trees, an average of 950 trees per acre. Average cost was 1¼ cents per tree. During the past five years federal agencies under direction of the Forest Service have planted more than 1,000,000,000 trees in the reforestation of 807,098 acres in the national forests. Only a small part of reforestation was through seeding, most of it being in the placing of small trees. Direct seeding was found impractical in most instances because mice, squirrels, and other rodents ate the seeds. The Forest Service estimated that about 3,500,000 acres in the national forests still are in need of planting to bring the land into production for timber and protect watersheds.

SLEEPING SICKNESS OF HORSES

What about sleeping sickness of horses? This was a question put to Chief John R. Mohler of the Bureau of Animal Industry while he was testifying at a House of Representatives subcommittee hearing on the Agricultural Department Appropriation Bill. He answered: "That is being most wonderfully controlled as a result of new protective vaccine discovered during the last year. This vaccine for sleeping sickness is produced by infecting the twelve-day-old chick embryo with the virus. The embryonic chick is then emulsified with formalin, thus producing a vaccine which is almost 100 per cent perfect. Whereas last year, 1938, we had a record of the disease involving 184,000 horses, this year I do not think the record when completed will show more than about 10,000 cases from all the states. This vaccine has proved to be a remarkable success. The army and state militia had their 36,600 horses vaccinated with this embryonic chick vaccine, and they did not have a single death from the disease. Last year we lost about thirty horses from the 139 or 140 animals at our Miles City range station, but this year we lost none from this disease."

RIGHT TO KILL GAME

Right to kill big game out of season, if honestly necessary to protect property from damage, is given in a Supreme Court of Montana decision in the case of *State* vs. *Rathbone* (p. 6 March PRODUCER). The defendant was arrested for killing big game, and pleaded defense of his property, that the animals were eating his pastures, and that he had made unsuccessful efforts to gain relief through the fish and game commission. In giving the decision, the court said that mere use of constitutional guarantee to kill big game out of season when property is not being substantially damaged is no defense. Every case must be decided upon its own merits. Montana Wool Growers' Association attorney declared the stockmen did not want to sanction violation of game laws by those whose property was not being destroyed but were using the argument simply as an excuse to kill out of season. But, he said, where a rancher honestly endeavors to protect his property by all reasonable means and fails in this, he has a right to kill to protect his property.

ONE OF TEXAS' TEN LARGEST

The *Laredo Times* (Texas), writing up the "Callaghan Ranch, one of Texas' ten largest," just north of Laredo, says that it embraces "214,000 acres of property which it owns and more which it leases. The property is fifty miles long and thirty miles across at its widest part. On it are 800 miles of modern wire fencing; fifty miles, or 264,000 feet, of two-inch water pipe; forty-five large surface tanks and 123 wells and pipe line watering places—a total of 168 watering centers. The ranch's annual sales have been as high as $750,000 a year, though the average is a little better than half that amount. It pays $30,000 a year in taxes and has made a single sale of $120,000, while it costs about $100,000 a year to operate."

SEASON EARLY

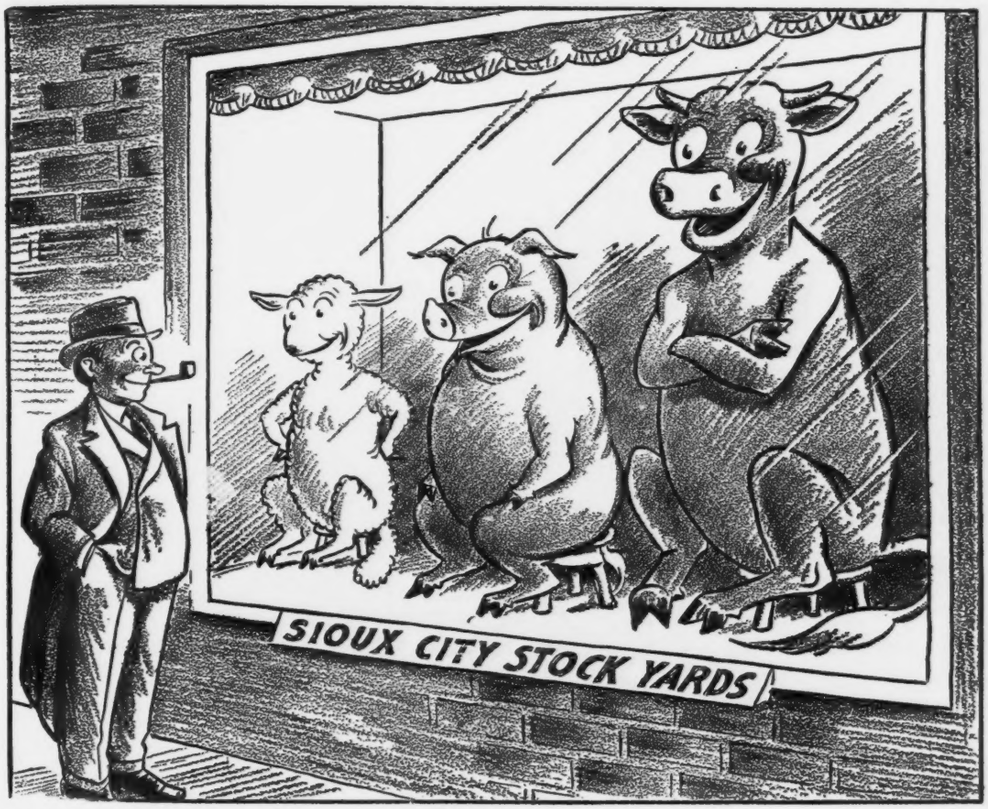
The winter has been warm, with feeding conditions good. Hay sold at $5 to $7 a ton in the stack. Have had plenty of rain this spring, but the grass is short, due to lack of warm weather. Stock has been out since the first of the month. The season is very early here, and it looks as though we may have a dry summer.—L. A. DREMOLSKI, U. S. Forest Service, Hailey, Idaho.

MILDEST WINTER

Stock of all kinds wintered well, with a surplus of feed. We have had more rain since January 1, 1940, to date than we had in the entire year 1939, thereby insuring best early grass for years. We have had an unusually mild winter here—I really believe the mildest that I have seen in Oregon for over fifty years. Success to the PRODUCER.—CYRUS WILLIAMS, Union County, Oregon.

LIKES IT

Enclosed please find money order for $1.50 for another year of your fine paper. I really like it very much. Wishing you all every success.—J. M. ALLISON, Melbourne, Australia.



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